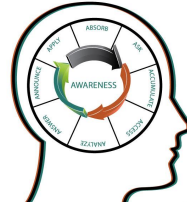




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Develop Your Data Mindset

Module 1 - Introduction to Course and Theme, Need for Data Training, Data Types, and Methods of Inquiry
Part 2 - Introduction to Theme

By Nathan Anderson, Amy Ova, Wendy Oliver, and Derrick Greer

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Learning Goals

- Increase awareness of feelings toward data
- Increase awareness of Great Plains data utilization efforts
- Increase awareness of Great Plains staff

Introduction

What are your learning goals for this course? As you think of these goals, they should align with your talents and interests for applying data in your classroom or school. Please take a few minutes to write them down in a journal to create your personalized learning plan.

Introduction

The team at Great Plains School District attended a summer retreat, where they collaborated on what they can do in the upcoming school year to improve student outcomes. At the retreat they decided their professional learning focus of the new year would be on data. Specifically, the team decided they would focus on how data could support them in order to improve student outcomes. Of course, each educator at the retreat had some very specific questions based on his or her role in the school system that they'd like to investigate as they take on the challenge of the new school year.

Introduction

Dr. Kevin King:

How can we ensure that data collected at Great Plains is used correctly?

Ryan Kelly:

What if teachers understood the types of assessment?

Carolyn Ross:

What if I knew which students were at risk?

Paul Morgan:

What if I knew which subject areas were the lowest and highest performing?

Mary Carter:

What resources can I provide for teachers?

Meet the Team

Throughout the course or “school year” you will be working closely with specific characters or team members from Great Plains School District. Take a minute to meet them before you get started.

Dr. Kevin King:

As the Superintendent of Great Plains, I look forward to rich and diverse instruction that meets the needs of every student in the district. I believe our students and teachers can reach far beyond a number or test score. Through hard work and dedication, our teachers, administrators, and students will grow beyond their test scores. By developing our data mindset, we will be able to understand, interpret, and apply data throughout this year in order to appropriately challenge students into becoming lifelong learners.

Meet the Team

Mary Carter:

My name is Mary Carter, and I've been the high school principal at Great Plains for three years. During this time, I've had the opportunity to work with awesome teachers and students. One of my goals this school year is for staff to be able to take advantage of all the data we have in order to personalize learning for all of our students.

Carolyn Ross:

My name is Carolyn Ross, and I'm a teacher at Great Plains. I have been teaching for about ten years, and I really haven't had much training on understanding data or, if I did, I don't remember it! I do know that we have access to a lot more data on students now than when I first started teaching, and I know I'm expected to understand and apply it. Personalized learning is all the rage now, so I'm hoping I can learn to understand the applications of all the data we have on each of my students, especially if it means I can differentiate instruction so my students are more successful.

Meet the Team

Ryan Kelly:

I'm Ryan Kelly, and I'm the Data Coach this year at Great Plains. I LOVE data! My job is to help teachers and administrators understand their students' data so they can grow their students to higher levels of achievement. Many teachers are intimidated by the charts and diagrams they see when data is provided, but I have some tips and tricks up my sleeve to make their lives a LOT easier!

Paul Morgan:

I'm Paul Morgan, and I am fortunate to do what I love every day as the elementary school principal! I thoroughly enjoy leading teachers who are educating the next generation. I have the privilege of interacting with youngsters everyday who will shape our future. Each day I wonder, "How can we improve instruction at Great Plains, so that our children get a world class education?" I'm excited this year to focus on understanding and applying the data we have been collecting in order to meet the needs of every student!

Welcome Letter from Superintendent King

Greetings Great Plains teachers and staff!

It is my great pleasure to welcome you to the new year at Great Plains School District. I'm excited to collaborate with all of you throughout the year as we strive to have a positive impact on each and every student. Here, at Great Plains, we believe all students have potential to develop capacities and interests that will equip them to make relevant contributions to the world in which they live. We empower students to embark on a lifelong journey of doing something important that they do well and enjoy doing.

Let me say that I've worked with most of you long enough to know that I am being blessed again this year with a great privilege of working alongside the best educators around. You consistently demonstrate sound pedagogical practices and professional judgment, day in and day out. I can't thank you enough for your ongoing dedication to helping all students at Great Plains achieve their greatest potential.

Welcome Letter from Superintendent King cont.

This year, we will be acting on an opportunity to have an even greater impact on our students. If you recall the results of our school improvement visit last year, we were given a required action to improve our use of data to guide decisions at all levels throughout the district. This required action is providing us an opportunity to focus efforts on becoming better data users on an individual student level, system wide district level, and everywhere in between. At first glance it might seem a bit daunting; it seemed that way for me, anyway. But, as I reflect on it further, I'm becoming much more enthusiastic about focusing efforts on improving our data use this year. Using data as evidence to support what we're doing is incredibly important. I'm confident that we do great things here and that our initiatives are working; however, if a student, parent, or school board member questions me on whether what we're doing really is working (which I sincerely hope they would all feel comfortable doing, I might add), my "confidence that our initiatives are working" is not going to suffice as evidence, especially if there's price attached to our initiatives. Using student achievement data as evidence of improved student learning alongside my confidence to support my claim that what we're doing is working would be much greater evidence than my confidence alone.

Welcome Letter from Superintendent King cont.

We collect immense amounts of data on our students, including grades, daily formative assessments, summative and interim standardized assessments, behavior concerns, absences, tardiness, demographic information, and more. If we're spending all this time and money collecting this information, we owe it not only to ourselves, but to our students, parents, and other stakeholders, to use the data as effectively as possible. By becoming better data users, we are positioning ourselves to combine our existing pedagogical practices and professional judgment with improved data utilization capacities to do what we do as educators even better! Exciting, right?

In the field of education, we are often faced with important problems that don't always have perfect solutions. When the perfect solution does not exist, we should proceed with the best available option. Using data effectively can help reveal the best available option.

Welcome Letter from Superintendent King cont.

To get our feet wet in effective data use this year, we are going to spend in-service focusing on effective data use. Our Data Coach, Ryan Kelly, should be a tremendous help as we undertake this new focus. We will start the year, at in-service, with some data utilization basics, including purposes for data and a framework for effective data use, and then put those basics into action throughout the year using various types of academic data to further enhance the academic capacities of our students. We'll focus on using data for a variety of purposes, including identifying what students know and need to know relevant to a current lesson, identifying student strengths and skill deficits, identifying which students are at risk for poor learning, and evaluating whether a student is making progress toward an end of year goal.

Here's to another great year at Great Plains!

Dr. Kevin King
District Superintendent

Data Document

See data document on next two slides.

ACT

Average ACT Composite Score by Subgroup (Gender)

School Year	Male Avg Composite	Female Avg Composite
Year 1	20.40	20.62
Year 2	20.84	20.77
Year 3	21.85	21.07
Year 4	20.03	20.79

ACT % College Ready by Subject: Year 4

Subject	District	REA
Lang	75%	64%
Math	46%	42%
Read	48%	42%
Sci	45%	39%

This document includes data representing the following assessments that help guide decisions at Great Plains School.

Assessment	Subject(s)	Grade(s)	Term(s)
State Assessment (NDSA)	ELA/Literacy, Math, Sci	3-8, 11	Spring
District Interim (e.g. NWEA, aimsweb, Star)	Read, Math, Lang Arts	1-11	Fall, Winter, Spring
ACT	Read, Math Lang Arts, Sci	11	Spring

The assessments administered by “Great Plains School District” are aligned to the district’s curriculum. All instruction at “Great Plains School District” is based on high priority curricular needs.

All standardized assessments are administered with fidelity according to each test vendor’s respective testing window and other protocol, ensuring collection of valid and reliable data. All assessments are administered to at least 95% of students in each grade level being assessed, ensuring collection of unbiased data that accurately represent the student population being served. Appropriate assessment accommodations are made for students with a disability or an Individualized Education Program (IEP).

Great Plains School District

123 Growth Road
Mindland, ND

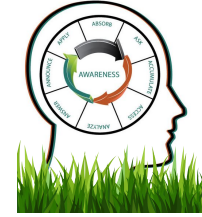
Phone: 555-555-5555
Fax: 555-555-5555

Superintendent: Dr. Kevin King
High School Principal: Mary Carter
Elementary School Principal: Paul Morgan

<http://www.greatplains.k12.nd.us/>

Great Plains

School District



Home of the Growers

“Great minds grow here”

	Year 2	Year 3	Year 4
Student Enrollment			
District Elementary	200	220	240
District High School	190	295	180
Total Students	390	415	420
Student Free / Reduced Lunch	36%	29%	17%
Average Daily Attendance (Elem)	98%	98%	97%
Average Daily Attendance (High)	97%	97%	95%
Graduation Rate	96%	98%	97%
Staff (FTE) K-12			
Classroom teachers	37	38	38
Other Licensed Staff	4	4	4
Support Staff	18	18	20
Professional Development Days	2	2	2
Student contact days	175	175	175

District Interim

Math % Average or Above (Spring)

Grade	Year 1	Year 2	Year 3	Year 4
1	82%	83%	96%	92%
2	93%	90%	96%	95%
3	39%	66%	86%	58%
4	39%	74%	65%	62%
5	77%	56%	64%	54%
6	74%	90%	89%	69%
7	61%	86%	69%	72%
8	81%	65%	73%	78%
9	78%	74%	78%	90%
10	70%	77%	81%	96%
11	90%	97%	92%	94%
1-11*	72%	80%	81%	79%

Reading % Average or Above (Spring)

Grade	Year 1	Year 2	Year 3	Year 4
1	82%	90%	78%	82%
2	80%	89%	88%	79%
3	84%	91%	86%	45%
4	87%	91%	83%	84%
5	81%	68%	86%	71%
6	96%	90%	78%	85%
7	78%	84%	80%	83%
8	73%	85%	82%	81%
9	84%	81%	79%	69%
10	88%	77%	86%	89%
11	75%	85%	92%	85%
1-11*	75%	80%	82%	80%

Language Arts % Average or Above (Spring)

Grade	Year 1	Year 2	Year 3	Year 4
1	93%	70%	86%	82%
2	91%	96%	78%	85%
3	63%	84%	83%	55%
4	87%	78%	70%	77%
5	79%	79%	76%	69%
6	81%	82%	85%	78%
7	76%	54%	82%	83%
8	69%	64%	58%	85%
9	69%	59%	57%	72%
10	82%	78%	65%	79%
11	84%	81%	79%	75%
1-11*	79%	74%	73%	76%

*Weighted average

NDSA (through Year 2)

NDSA - Math % Proficient or Advanced

Grade	Year 1	Year 2	Year 3	Year 4
3	92%	90%	-	-
4	79%	91%	-	-
5	87%	65%	-	-
6	88%	85%	-	-
7	86%	82%	-	-
8	66%	56%	-	-
11	61%	56%	-	-
3-8,11*	79%	74%	-	-

NDSA - Reading % Average or Above (Spring)

Grade	Year 1	Year 2	Year 3	Year 4
3	72%	65%	-	-
4	81%	86%	-	-
5	51%	67%	-	-
6	82%	78%	-	-
7	73%	73%	-	-
8	62%	70%	-	-
11	43%	64%	-	-
3-8,11*	68%	77%	-	-

NDSA - Language Arts % Average or Above (Spring)

Grade	Year 1	Year 2	Year 3	Year 4
3	92%	84%	-	-
4	83%	68%	-	-
5	66%	77%	-	-
6	75%	77%	-	-
7	66%	75%	-	-
8	72%	66%	-	-
11	69%	58%	-	-
3-8,11*	72%	71%	-	-

*Weighted average

NDSA (Year 3 and later)

NDSA - Math % Proficient or Advanced

Grade	Year 1	Year 2	Year 3	Year 4
3	-	-	94%	90%
4	-	-	89%	95%
5	-	-	82%	85%
6	-	-	93%	77%
7	-	-	81%	79%
8	-	-	75%	75%
11	-	-	87%	67%
3-8,11*	-	-	86%	82%

The Smarter Balanced Assessment has been administered as the North Dakota State Assessment (NDSA) since Year 3. Smarter Balanced includes a single ELA/Literacy assessment in place of separate Reading and Language Arts assessments that were previously part of the NDSA.

NDSA - ELA/Literacy % Average or Above (Spring)

Grade	Year 1	Year 2	Year 3	Year 4
3	-	-	92%	88%
4	-	-	95%	92%
5	-	-	61%	80%
6	-	-	96%	57%
7	-	-	77%	86%
8	-	-	86%	74%
11	-	-	90%	81%
3-8,11*	-	-	87%	80%

*Weighted average

Schedule

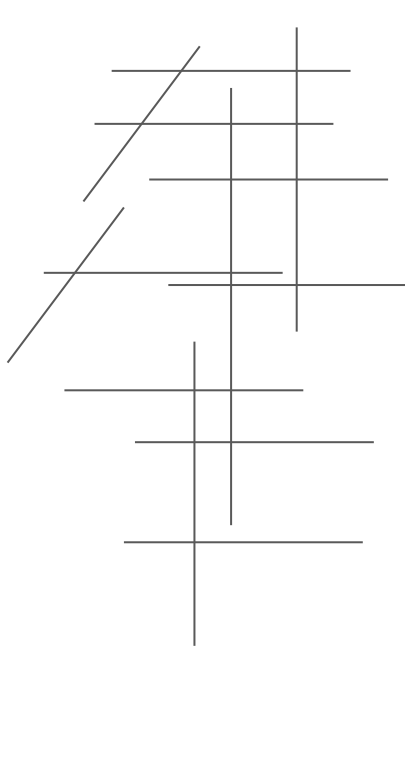
8:00 AM - 11:00 AM	Work in your rooms/meet with Data coach
11:00 AM - 12:00 PM	Lunch from the Parent Advisory Council
12:00 PM - 4:00 PM	Data Training and In-Service

Work in Your Rooms

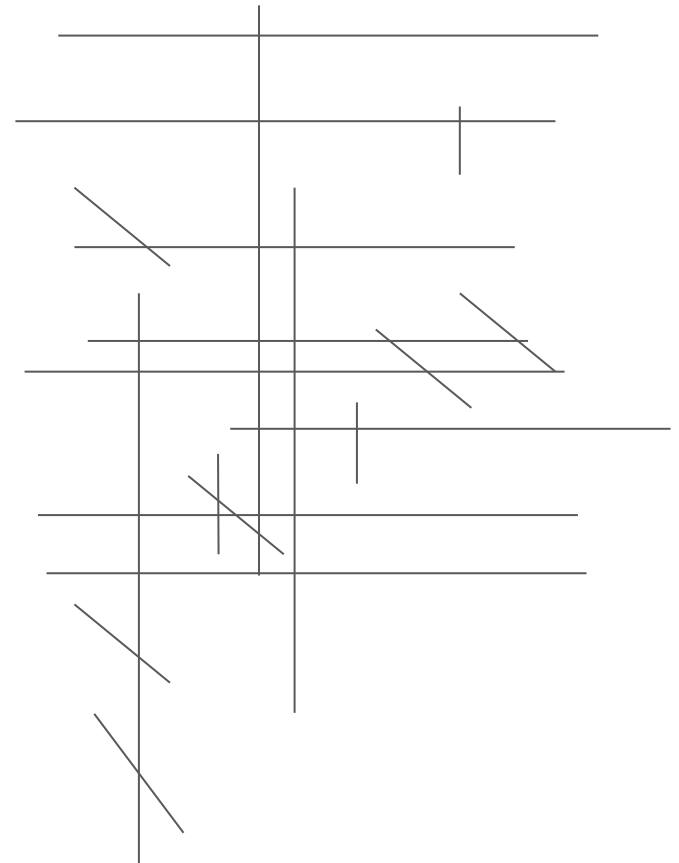
Let's make the most of your time to work in your room before the in-service sessions begin. Oh no! It appears like the maintenance supervisor dumped all of your spring order items into a pile on the floor and some of the supplies are not even in the original box anymore and there aren't any instruction sheets or tools. Of course, you notify your administrator, who contacts the maintenance supervisor, but while you are waiting on a solution, you try to remember what you ordered and put some items back together

Work in Your Rooms

Item #1

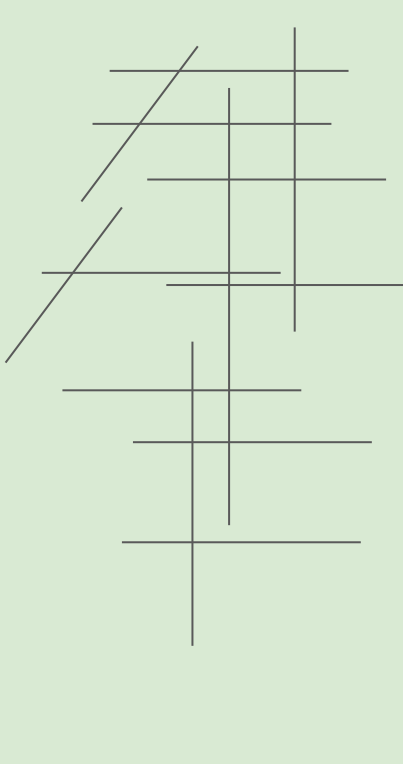


Item #2



Work in Your Rooms

Item #1

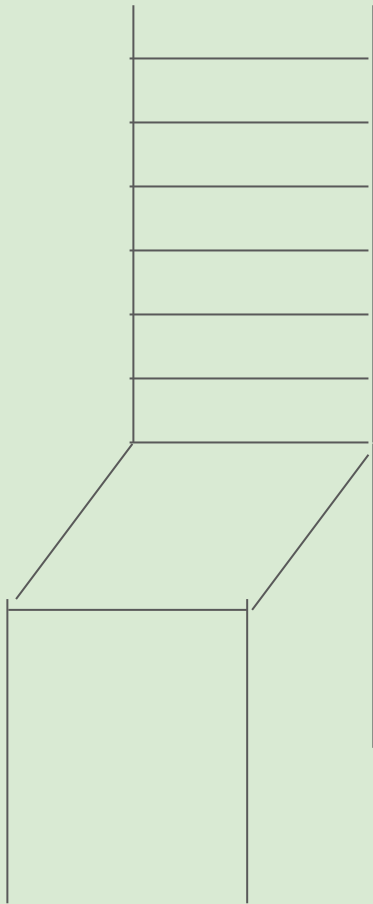


What do you think these pieces were originally?

- Desk
- Table
- Chair
- Bookshelf

Work in Your Rooms

Item #1



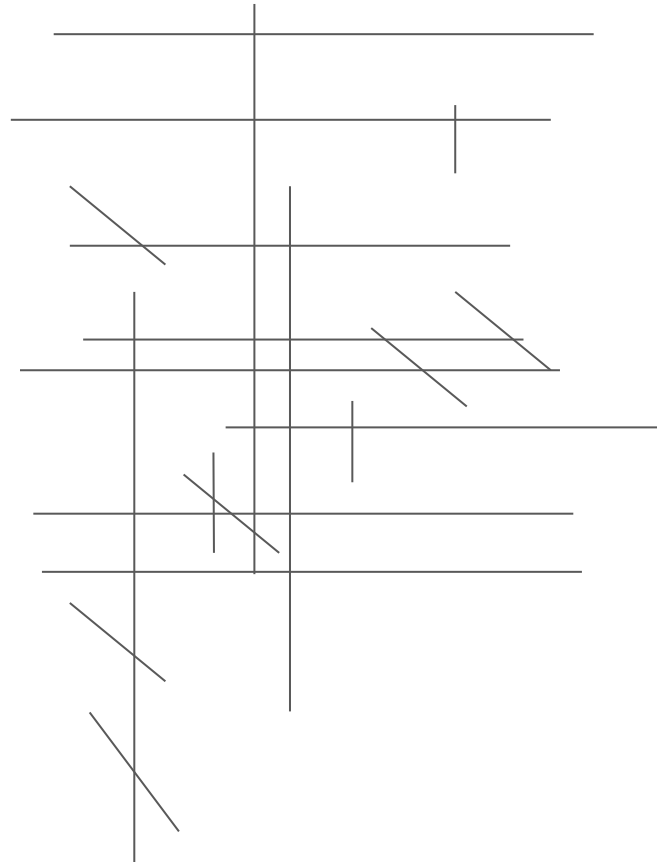
Did you answer chair?

- Desk
- Table
- Chair
- Bookshelf

Work in Your Rooms

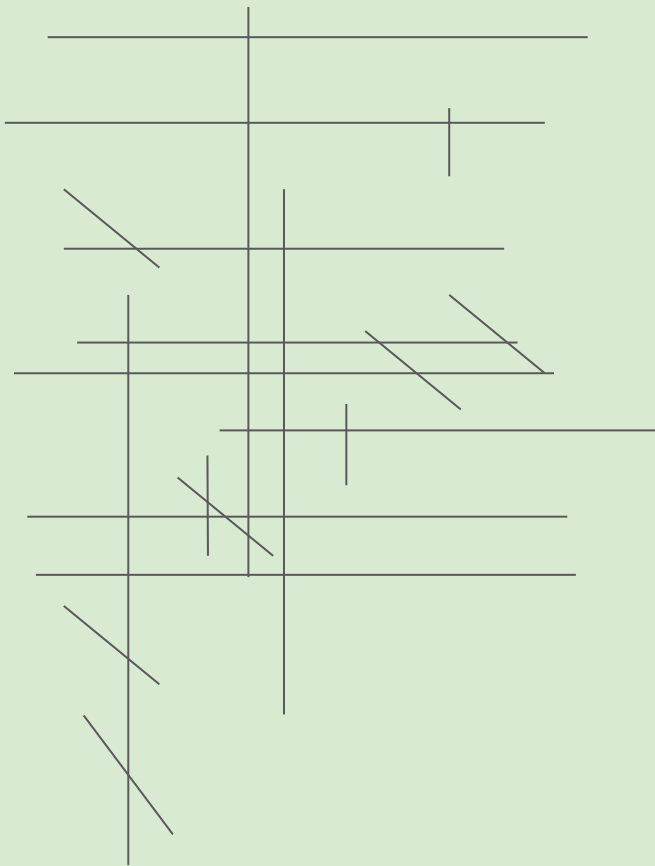
This is really tough! Thank goodness the maintenance supervisor is going to come to your room after lunch. In the meantime, there is another pile of items on your kidney table. See if you can assemble that while you wait.

Item #2



Work in Your Rooms

Item #2

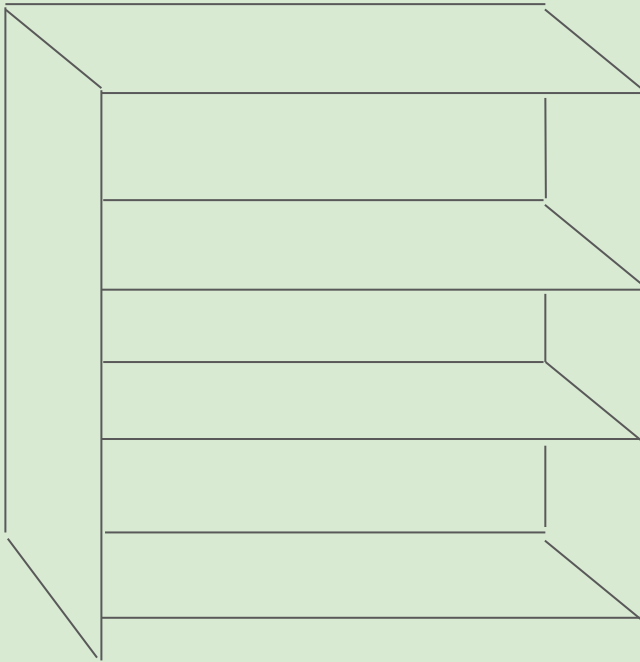


What do you think these pieces were originally?

- Desk
- Table
- Chair
- Bookshelf

Work in Your Rooms

Item #2

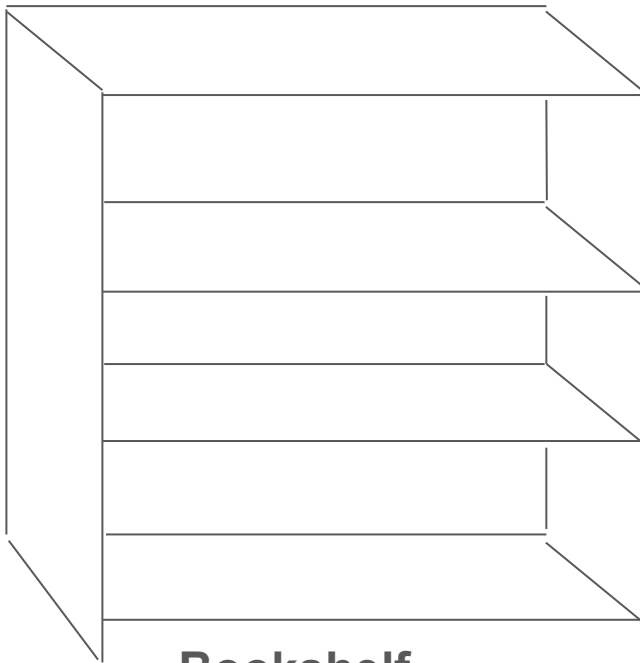


Did you select bookshelf?

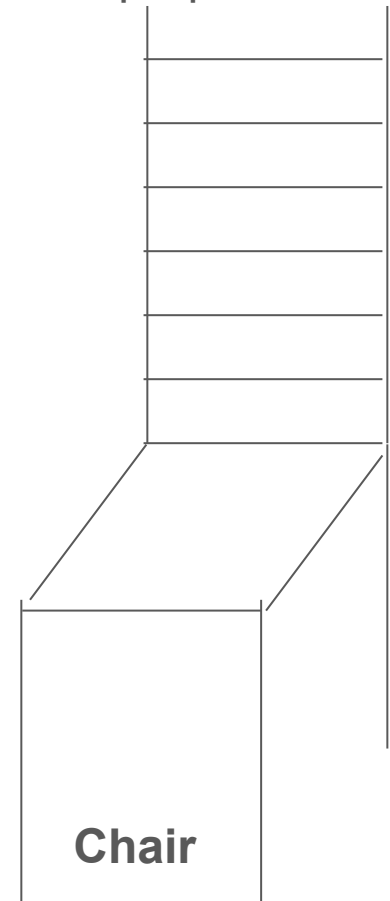
- Desk
- Table
- Chair
- Bookshelf

Work in Your Rooms

Wouldn't it have been easier to put together your chair and bookshelf if you were aware of the bigger picture, including having a list of what you ordered, why you needed it, and how it should be put together to serve its intended purpose?



Bookshelf



Chair

Work in Your Rooms

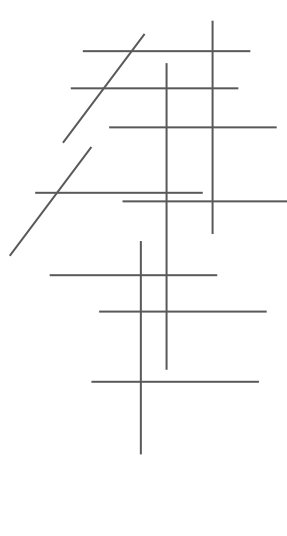
The stuff needed for the chair, bookshelf, and desks looks pretty similar, but the purposes for the stuff are vastly different. A couple of problems could arise if you try to build a desk with the stuff you were supposed to use for a bookshelf, even though the “stuff” looks similar:

1. The pieces probably won't fit together in the way they should because they weren't intended to be used for building a desk, or anything else for that matter.
2. You have an extra desk when what you really needed was a bookshelf.

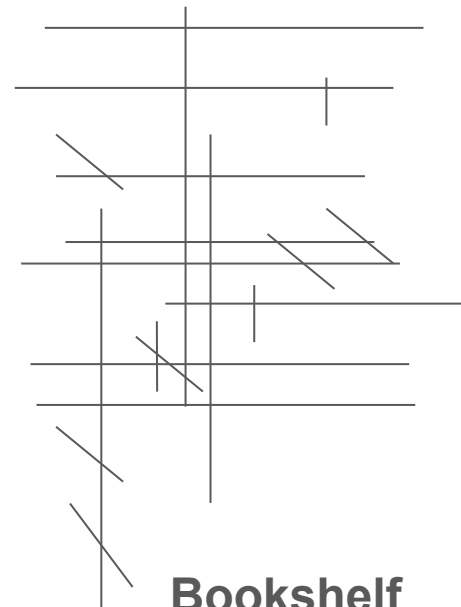
Work in Your Rooms

Although these lines appear to be similar, you can see that they serve different purposes. Could you have assembled the chair and/or bookshelf if, instead of being left to “do something with the piles in your room,” you knew:

- Why it exists? (a list of what you ordered)
- Why something needs to be created?
- How to put it together? (instruction sheets)
- When and how it would be used? (intended purpose)



Chair



Bookshelf

Work in Your Rooms

What if these pieces or items were data? Instead of only knowing your role of accessing and assembling (i.e., analyzing) the data, what if you knew how it fit into the bigger picture of helping students grow to reach their potentials? It sure would be a lot easier to use the data for its intended purpose.

How Does Data Make You Feel?

What if when you walked into your room, the piles of items and pieces were data?

How would you have felt?

- Frustrated
- Confused
- Frightened
- Bored
- Excited
- Motivated

How Does Data Make You Feel?

Frustrated

Yes, data can be immensely frustrating, especially if you're trying to use it to figure out something it's not intended to tell you, kind of like trying to bake a chocolate cake with ingredients that were meant for making an apple pie. You might be frustrated by data if you are a teacher with expectations to advance or "grow" students, but you don't have the correct data or know where to get it to make personalized learning plans.

I _____ feel this way about data.

- Never
- Rarely
- Sometimes
- Often
- Always

How Does Data Make You Feel?

Confused

Yes, data can be quite confusing, especially if you don't know what you should be looking for when you're looking at the data, kind of like shopping without a list of what you need and knowledge of why you need it. Data can be interpreted in different ways and applied in a variety of settings.

I _____ feel this way about data.

- Never
- Rarely
- Sometimes
- Often
- Always

How Does Data Make You Feel?

Frightened

Yes, data can be frightening, especially if you're asked by your supervisor or colleague to explain what it means and how you're using it, kind of like being put on stage and expected to perform a song in front of an audience when you don't know how to play an instrument or carry a tune. You might be frightened by data if you are a teacher and your school district implements a policy that all teachers are required to set goals with their students based on data. This could be especially true if you don't have a skill set and knowledge base required to work with data.

I _____ feel this way about data.

- Never
- Rarely
- Sometimes
- Often
- Always

How Does Data Make You Feel?

Bored

You might be bored by data if you teach a subject like art, phys-ed, or social studies, and you are expected to look at math and reading data from a standardized test. This could be especially true if you don't think math and reading data are relevant to the specific subject area you teach. In terms of pretty much anything in our lives, it's easy to become bored with something that doesn't seem relevant. The same is true with data. If the data don't seem relevant, they can be incredibly boring.

I _____ feel this way about data.

- Never
- Rarely
- Sometimes
- Often
- Always

How Does Data Make You Feel?

Excited

Absolutely, data can be incredibly exciting, especially if you know why it exists, how to analyze it, and how it can be used to make important decisions, kind of like building a house when you know why it's being built and what it's supposed to look like. With an unlimited budget, you have all the required supplies and tools and you know how everything in the house will be used when it's complete.

Interpreting and applying data correctly will help you to build appropriate learning for students.

I _____ feel this way about data.

- Never
- Rarely
- Sometimes
- Often
- Always

How Does Data Make You Feel?

Motivated

You might be motivated by data if you are a teacher who has grown to know what data can do in your classroom. When first approached with utilizing data, you knew you wouldn't naturally possess the knowledge, skills, and behaviors needed. You worked hard to increase your abilities and now are confident that when you make a decision in your classroom, you have the evidence to back it up.

I _____ feel this way about data.

- Never
- Rarely
- Sometimes
- Often
- Always

How Does Data Make You Feel?

Ryan Kelly:

No matter how data makes you feel right now, have no fear because your Data Coach is here! I will work with you during the course to help you overcome any negative feelings associated with data as we progress through this “virtual” year. I will coach you and help you grow towards your potential in understanding data as it relates to serving students.

When you learn how understanding data can help students succeed, you will be excited about the value of data and the new knowledge it can bring to your practice. If you’re already enthusiastic about data, these modules will reinforce some of the things you likely already understand and introduce you to new concepts you may not yet know. Most importantly, the entire course is designed contextually, as it relates to the classroom.

Here we go!

Superintendent Thought

Dr. Kevin King

So, if the educators at Great Plains understand the bigger picture or purpose for the data, then they will be able to use it correctly as a tool for improved instruction. I cannot wait to see what our data coach shares during in-service and over the year!

Indicate the extent to which you agree or disagree

	Strongly disagree	Disagree	Agree	Strongly Agree
This module part increased my awareness of my feelings toward data				
This module part Increased my awareness of Great Plains data utilization efforts				
This module part increased my awareness of Great Plains staff				

Well Done

You have completed this module part. You can begin the next lesson when you are ready.