Organizational Applications

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Oakland Schools

1

Connector

Impromptu Networking

Take a few minutes to wander around the room and meet other people.

1. Greet and tell each other name & work role
2. What do you see as your district's challenge with student data?

https://www.liberatingstructures.com/2-impromptu-networking/

2

2

AGENDA

- Connector
- Categories of Systems
- Categories of Users
- Student Information System - How Data Are Collected and Used
- Data Quality and Warehousing
- Choosing an Application
- Funding Implications
- Wrap Up

3

3

Course Commitments

- Participate Fully
- Resist the urge to multi-task

4

4

Course Objectives

- Introduction to student data points, how they are collected and who uses them
- Aspects of data points in a Student Information System (SIS); e.g., Enrollment, Accounting, Discipline, Scheduling, Grades, Attendance, Health, Special Programs, State and Federal Reporting etc.
- Discussion of attributes required which encompass a fully functioning SIS
- How are the data points interrelated
- Discussion of Data Quality and Data Warehousing

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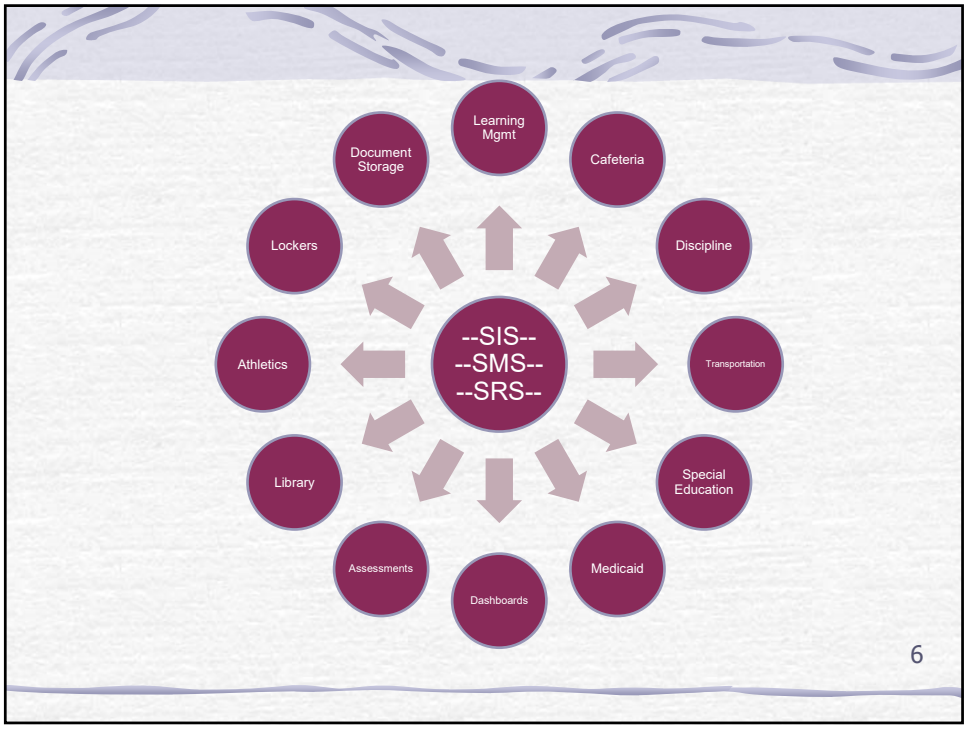

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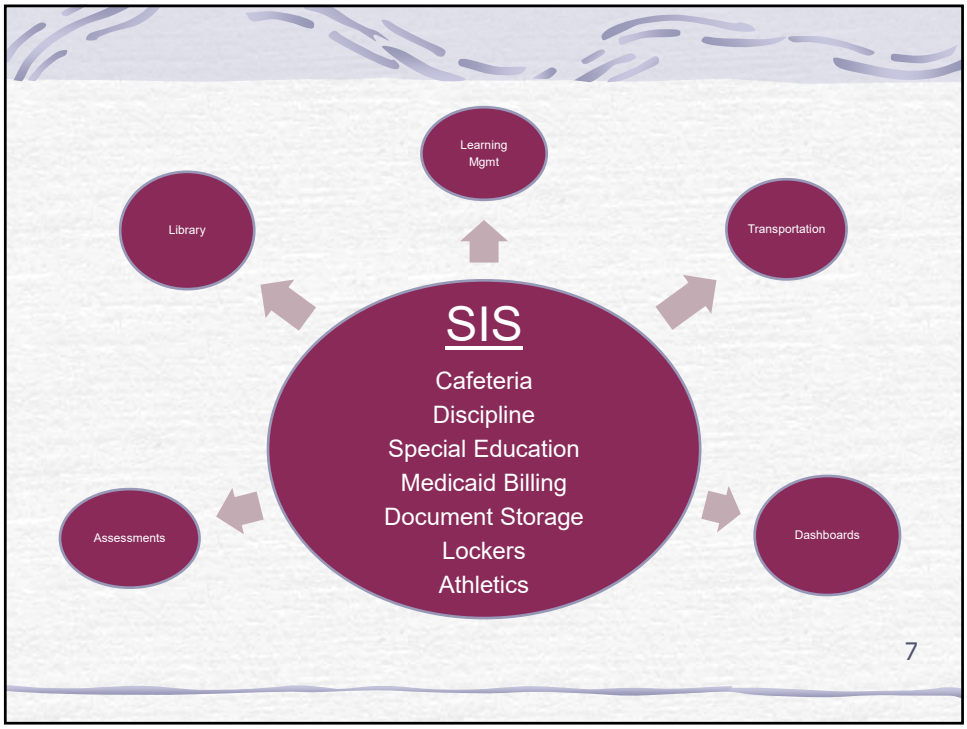

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Student Information System

- Define the Why
  - Increases visibility of student information
  - Better utilization of time and resources
  - Enhances productivity
  - Improves student success (data-centric decision making)
  - Enhances parent engagement and involvement
  - Identifies learning gaps
  - Enhances data security
  - Improved data-relations between departments

8

8

Student Data

What
Who
Where

9

9

Student Data Collected - What

- Student Data
  - Demographic data
  - Class enrollment/teacher assignment
  - Attendance/safety data
  - Behavior and Discipline
  - Programs and program compliance
  - Grades (student achievement)
  - Supplemental Nutrition Eligibility
  - Imported from outside sources
  - Manually Entered by students or parents
  - Manually entered/maintained by staff

10

10

Categories of Users - Who

- Internal Users
  - Central Office Administrators
  - Building Administrators
  - Office Staff
  - Teachers
  - Support Staff (Counselors, Social Workers etc.)
  - Board Members
- External Users
  - Parents
  - Students
  - Downstream Applications
  - ISD, State and Federal Agencies

11

11

Categories of Systems - Where

- Operational
  - **Student Information Systems (Data Source)**
  - Food Service
  - Special Education
  - Fee Management
  - Student Account Management (Email, Google Drive etc)
- Instructional
  - Learning Management System (LMS) Google, Edgenuity, Canvas)
  - Career Development (Xello – EDPs)
  - Assessments (iReady, NWEA, Acadience)
  - Online Resource/Classroom instructional (NEPRIS, HMH)
- Compliance, Accountability and Funding
  - Office of Civil Rights (OCR)
  - Michigan Student Data System (MSDS)
  - Office of Educational Assessment and Accountability (OEAA)

12

12

Student Data Life Cycles

- Life cycle 1 – Enrollment
- Life cycle 2 - Scheduling
- Life cycle 3 – Attendance and Behavior
- Life cycle 4 – Programs
- Life cycle 5 – Year End

13

13

Student Data Life Cyle - 1

- Enrollment in District
  - Required documentation is defined by State Reporting and Pupil Accounting regulations
  - Documentation may be further defined by district/board policy
  - Other data may be understood from previous district documentation that requires action (Active SE, LEP student)

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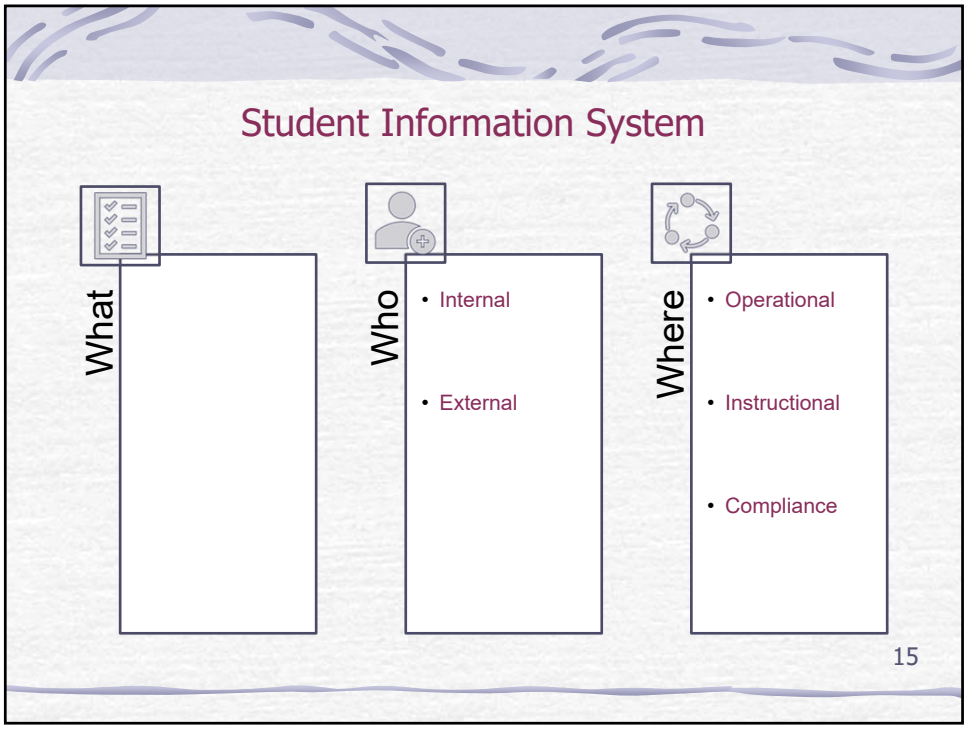
Student Information System
What
Who
• Internal
• External
Where
• Operational
• Instructional
• Compliance
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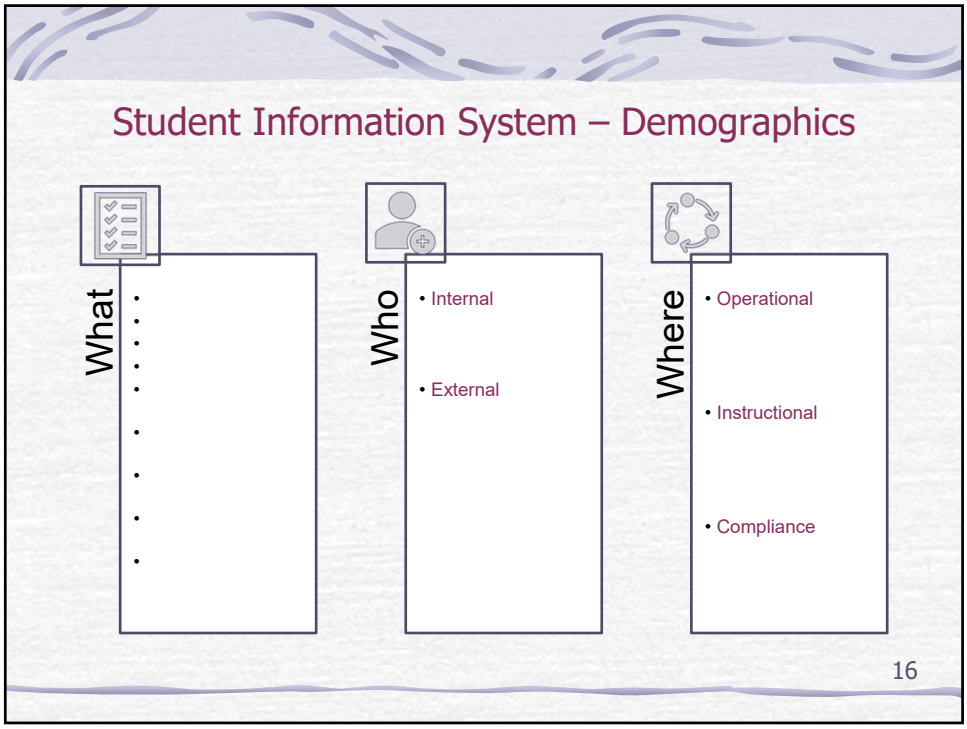
Student Information System – Demographics
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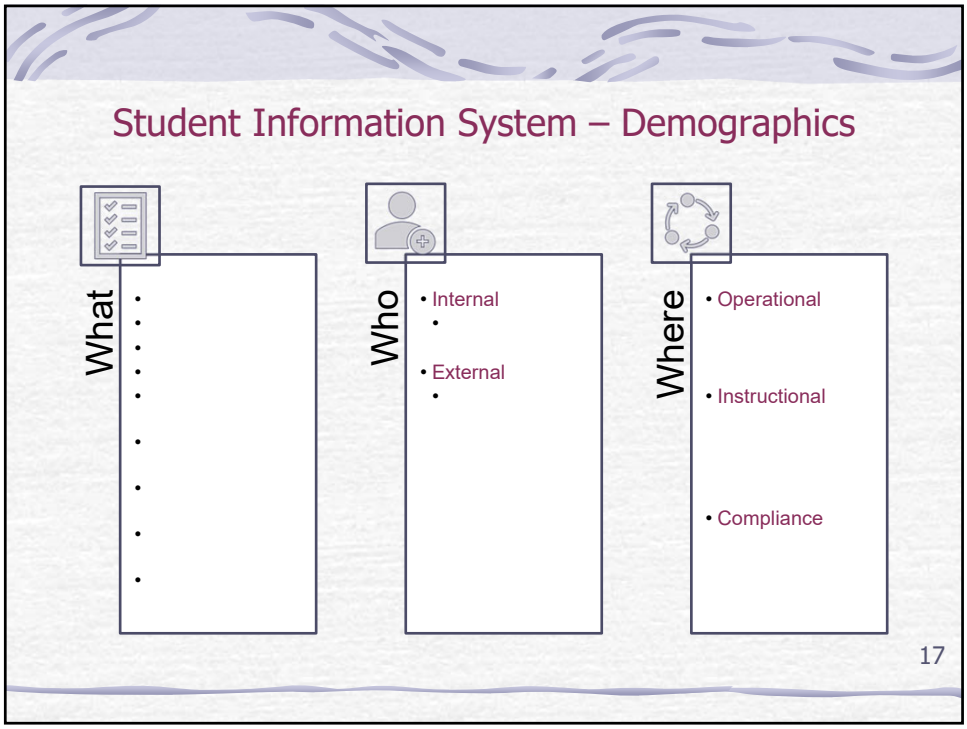
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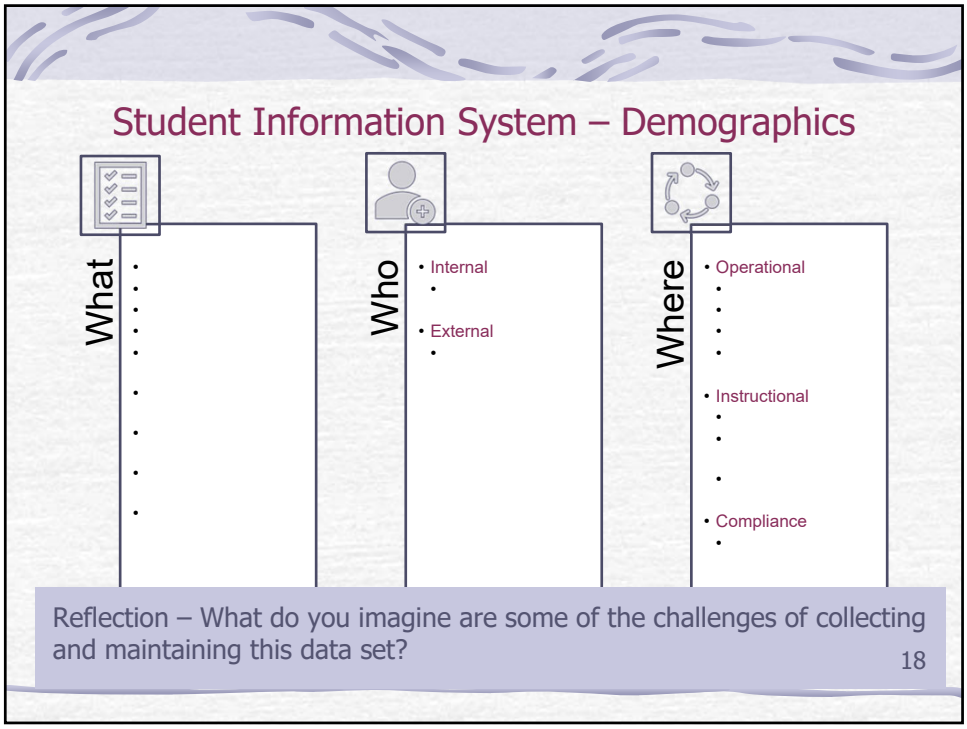
Student Information System – Demographics
What
Who
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Where
• Operational
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• Compliance
Reflection – What do you imagine are some of the challenges of collecting and maintaining this data set?
18

18

Student Data Life Cyle - 2

- Enrollment in Classes/Program - Scheduling
  - Elementary (building/teacher decision); Secondary by choice or grad requirement need
    - ✓ Course Request
    - ✓ Program Need
    - ✓ Accommodations

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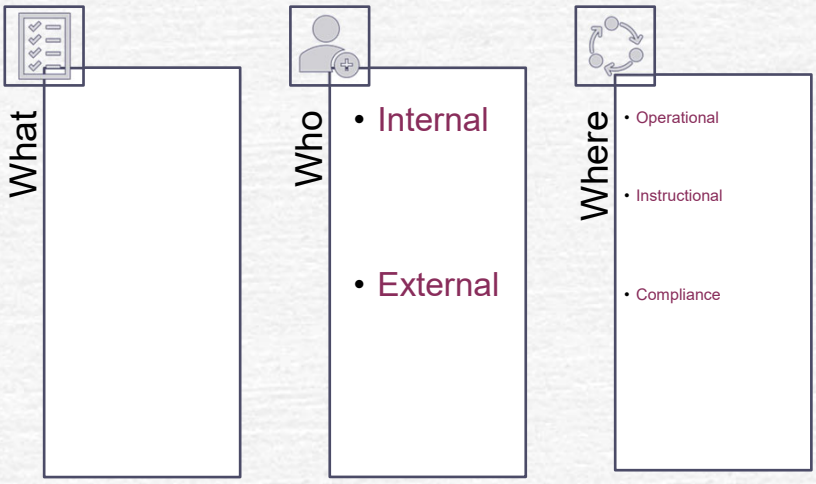
Student Information System - Scheduling



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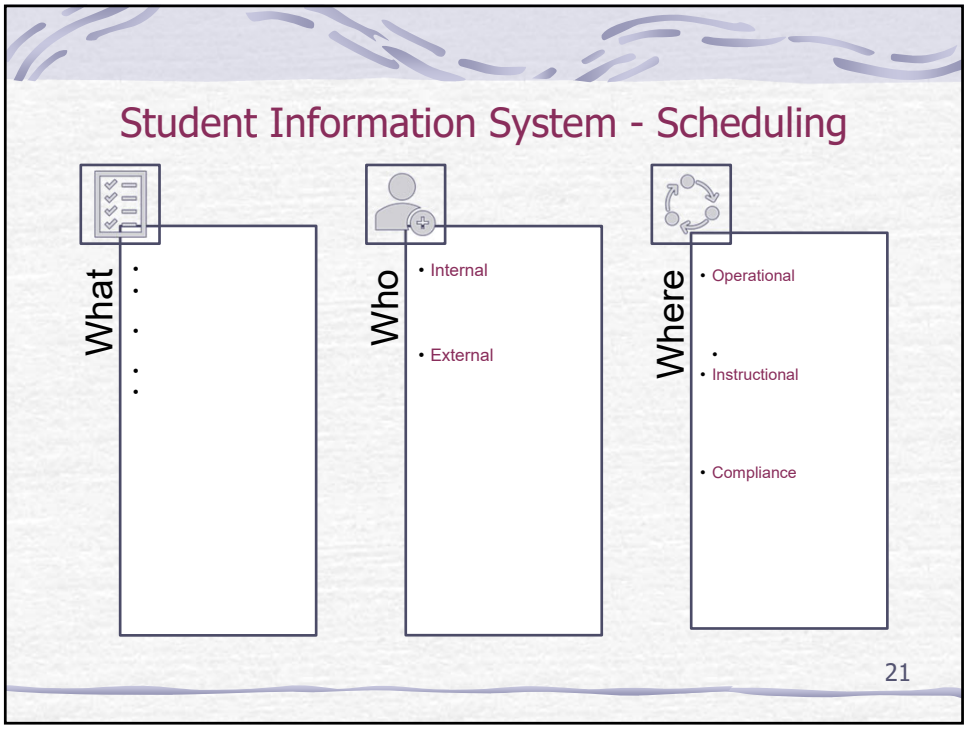
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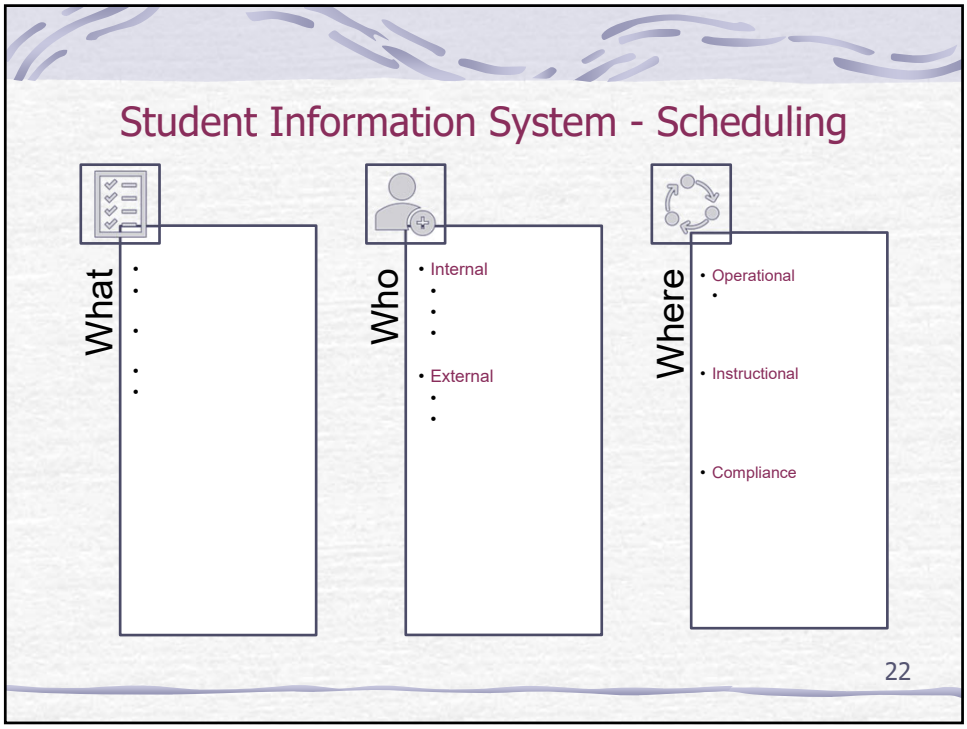
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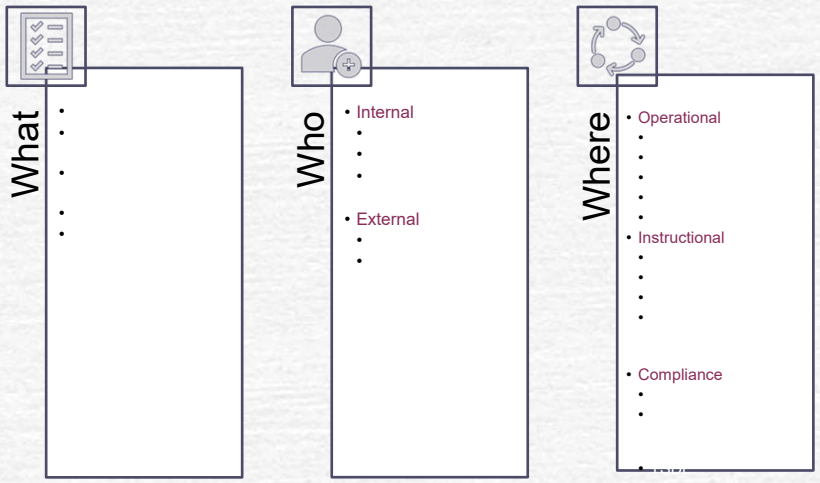
Student Information System - Scheduling



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Getting to Know Your Data

- Exercise sheet and activity
  - Getting to know your student data

24

24

Student Data Life Cyle - 3

- Attendance is Taken
  - Attendance is taken by highly qualified/Certified teachers (HR)
  - Office Monitors attendance collection (Safety)
  - Parents are notified (Safety)
  - Staff monitor compliance (Truancy) and review for program or services extended
  - State reporting is required

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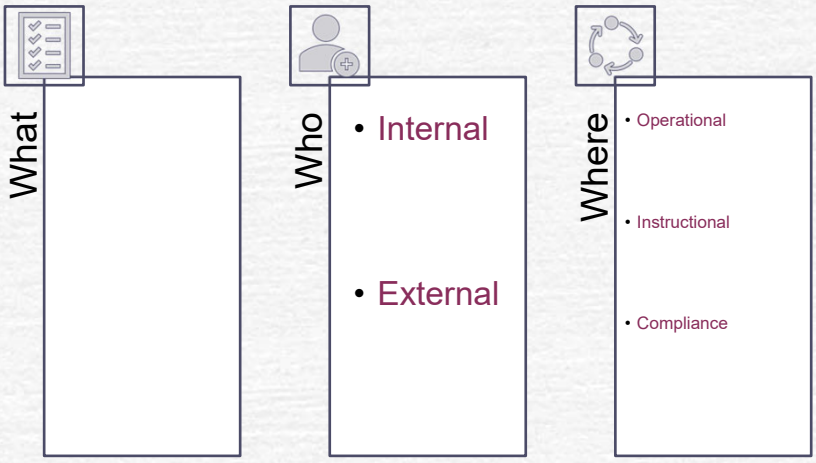
Student Information System - Attendance



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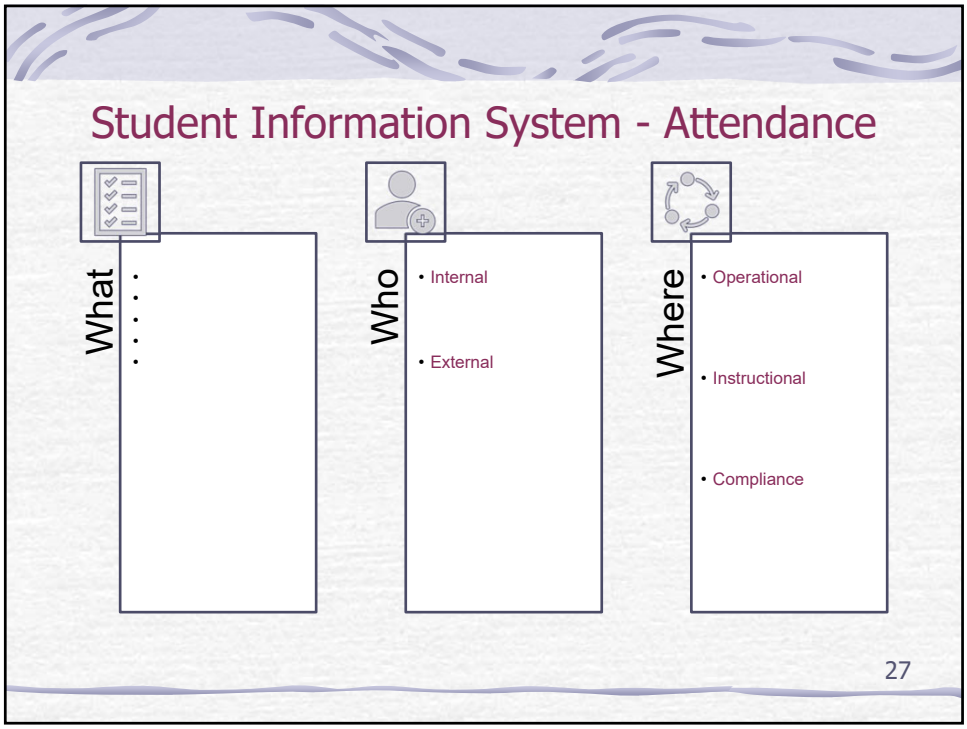
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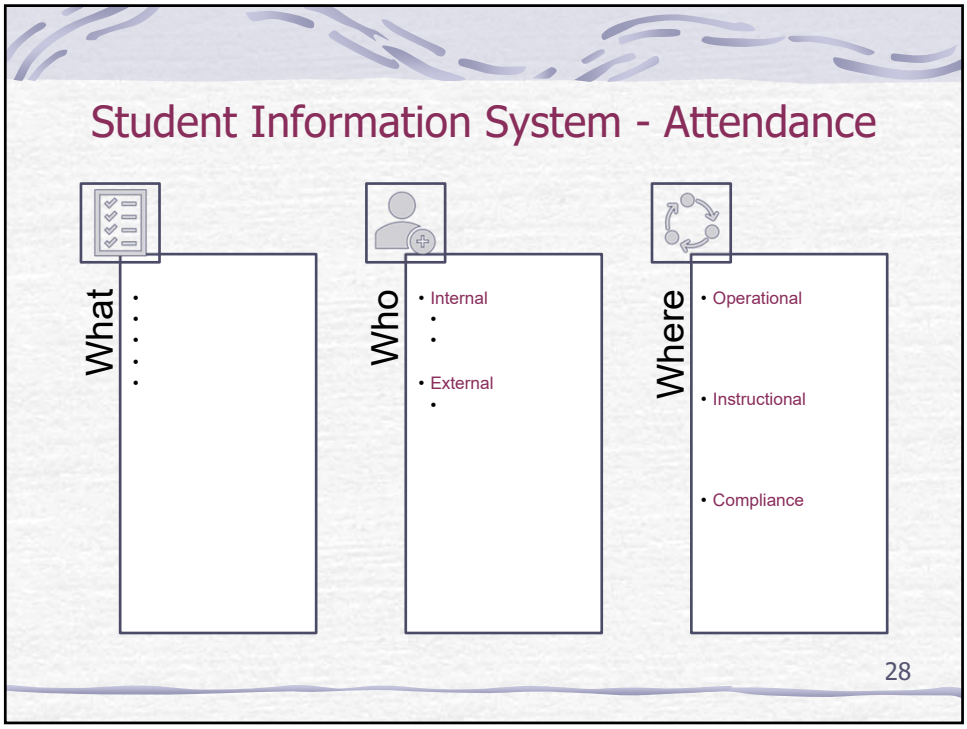
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Where
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Student Information System - Attendance

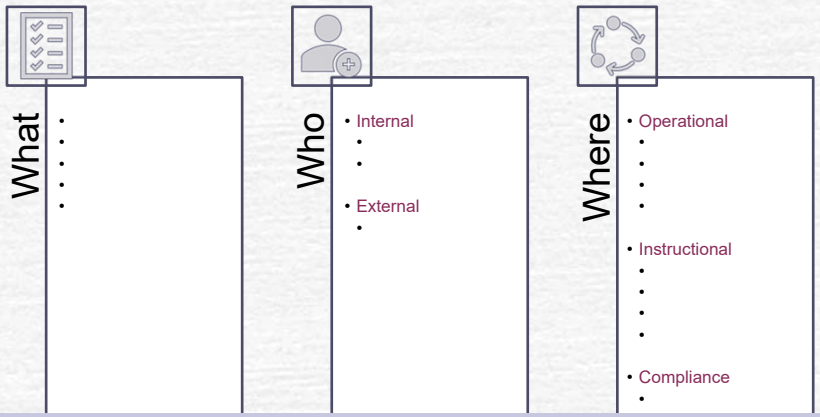

Table discussion: Think for 10 seconds around why it is important that attendance data is governed and has high quality?

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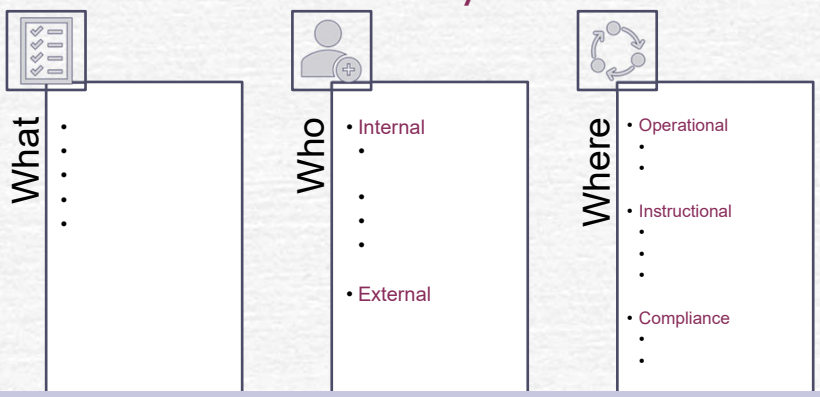
Student Information System - Behavior



Scenario – You are a building administrative assistant. You receive a request from the armed services requesting a copy of all behavior records pertaining to a specific graduated student. The student has signed a release of records authorization. What might the steps you would take to respond to this request?

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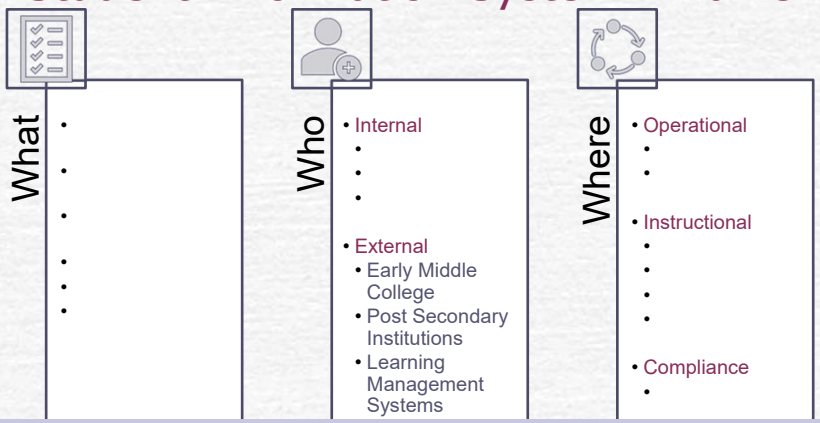
Student Information System - Marks



Scenario - You are the business manager. A principal comes to you and her staff would like to purchase a new gradebook system. They tell you the cost and hand you a purchase order. What might the steps be to assure data quality and governance before this purchase is made?

31

31

Student Data Life Cyle - 4

- Program / Special Education Enrollment
  - Students may enroll in district with required services needed (LEP, SpecEd etc)
  - Other times, staff notice attributes impeding student progress (Social Emotional, Mental Health), poor grades, poor attendance etc.
  - Students is evaluated and placed in a program or service if eligible
  - Reporting is required for funding and compliance

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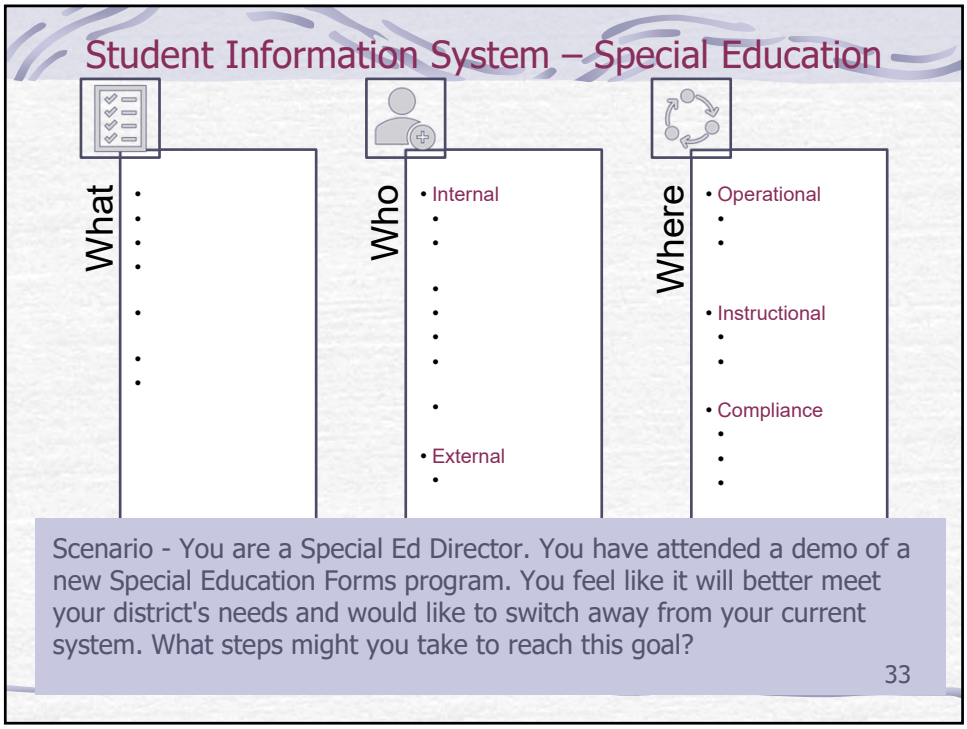
Student Information System – Special Education
What
Who
• Internal
• External
Where
• Operational
• Instructional
• Compliance
Scenario - You are a Special Ed Director. You have attended a demo of a new Special Education Forms program. You feel like it will better meet your district's needs and would like to switch away from your current system. What steps might you take to reach this goal?
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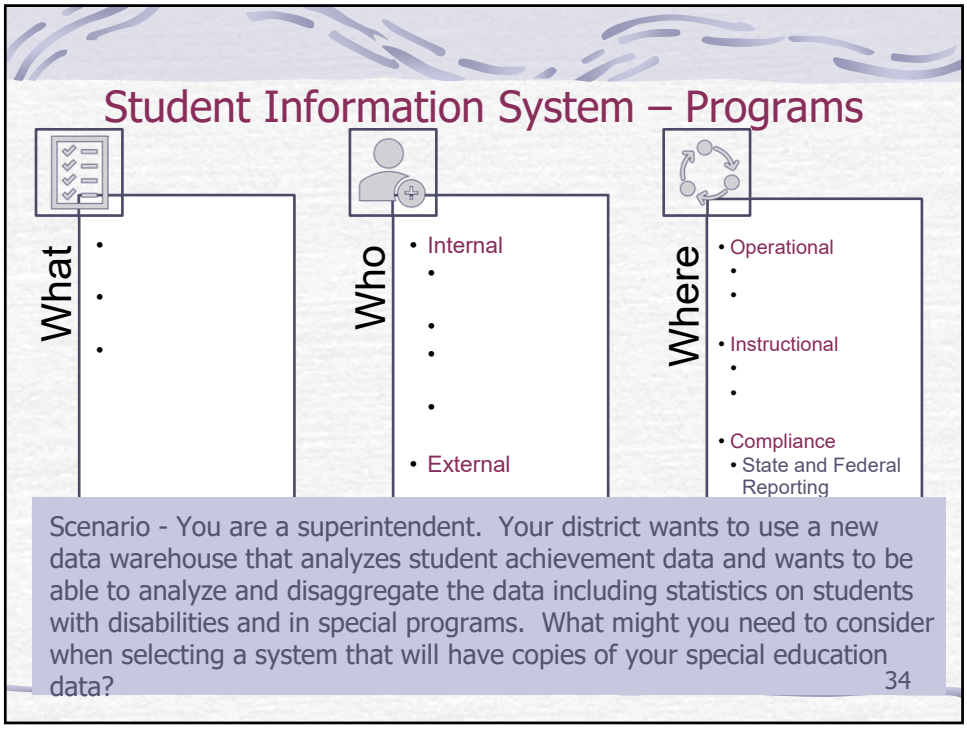
Student Information System – Programs
What
Who
• Internal
• External
Where
• Operational
• Instructional
• Compliance
• State and Federal Reporting
Scenario - You are a superintendent. Your district wants to use a new data warehouse that analyzes student achievement data and wants to be able to analyze and disaggregate the data including statistics on students with disabilities and in special programs. What might you need to consider when selecting a system that will have copies of your special education data?
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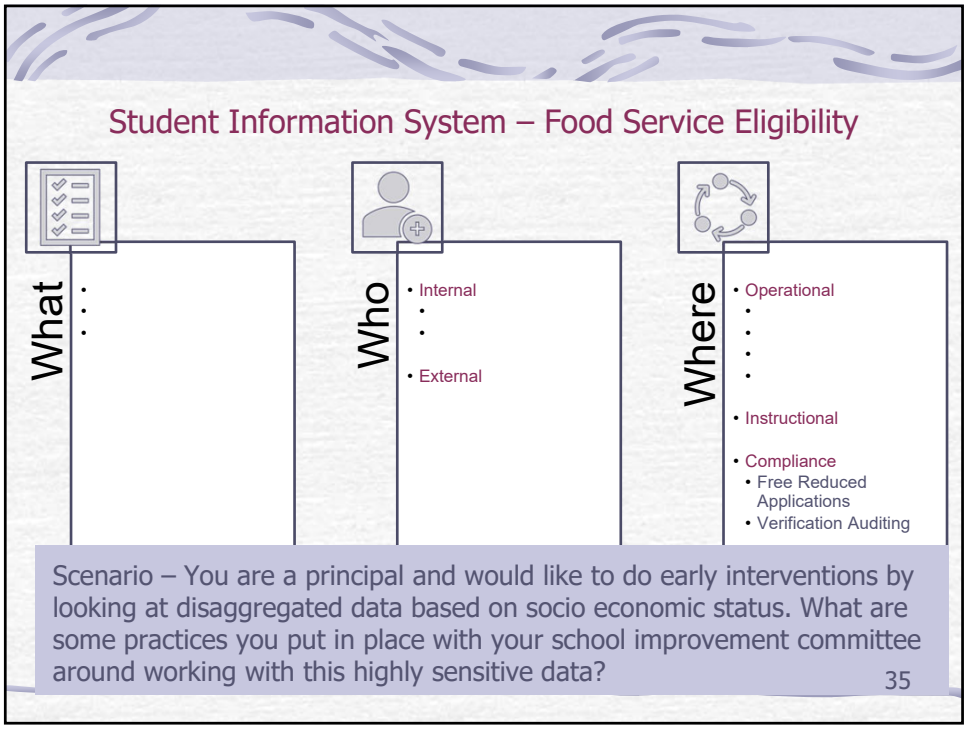
Student Information System – Food Service Eligibility
What
Who
• Internal
• External
Where
• Operational
• Instructional
• Compliance
• Free Reduced Applications
• Verification Auditing
Scenario – You are a principal and would like to do early interventions by looking at disaggregated data based on socio economic status. What are some practices you put in place with your school improvement committee around working with this highly sensitive data?
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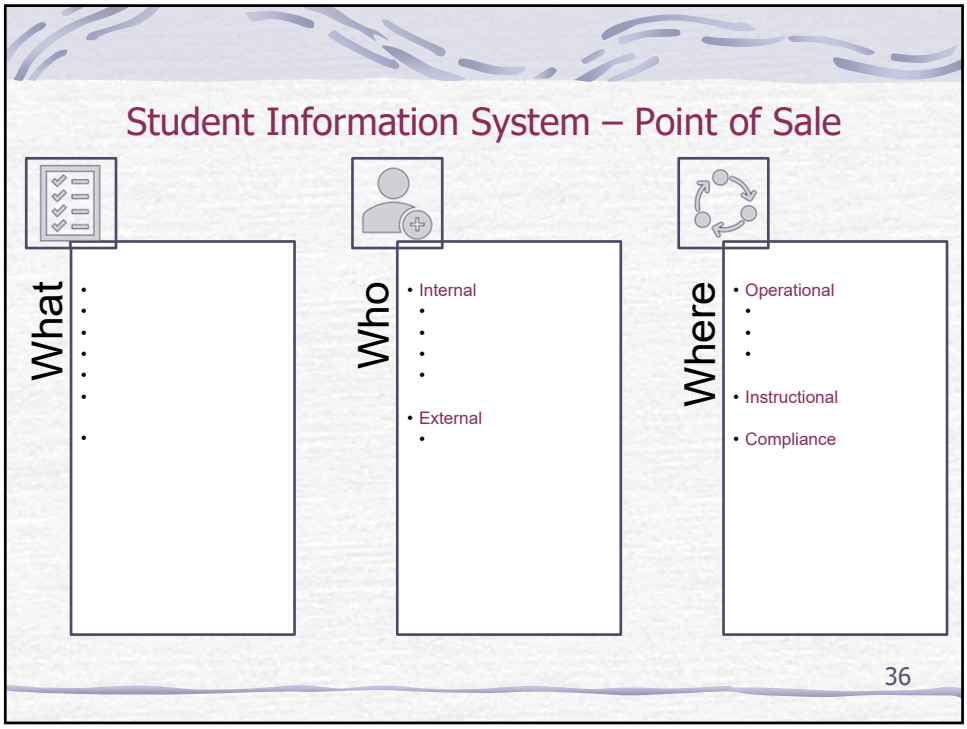
Student Information System – Point of Sale
What
Who
• Internal
• External
Where
• Operational
• Instructional
• Compliance
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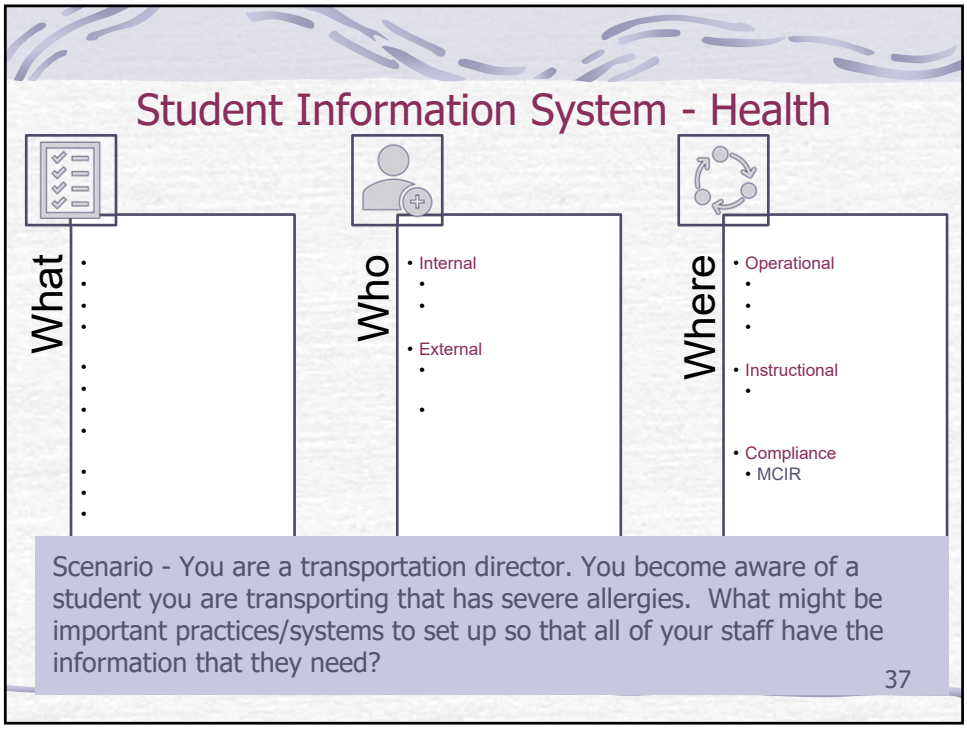
Student Information System - Health
What
Who
• Internal
• External
Where
• Operational
• Instructional
• Compliance
• MCIR
Scenario - You are a transportation director. You become aware of a student you are transporting that has severe allergies. What might be important practices/systems to set up so that all of your staff have the information that they need?
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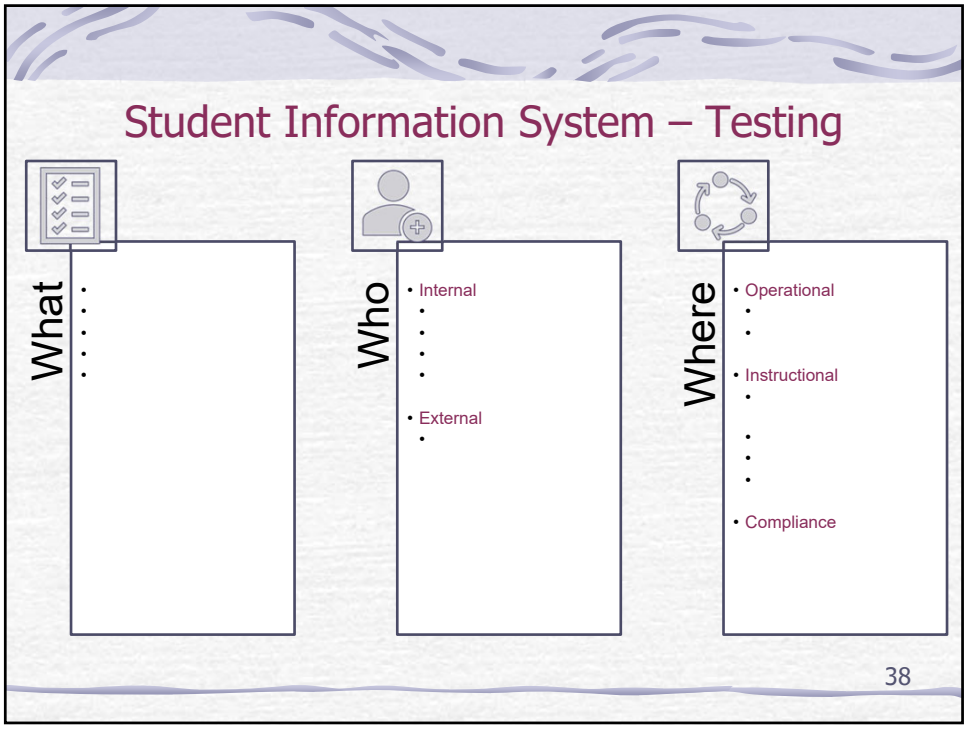
Student Information System – Testing
What
Who
• Internal
• External
Where
• Operational
• Instructional
• Compliance
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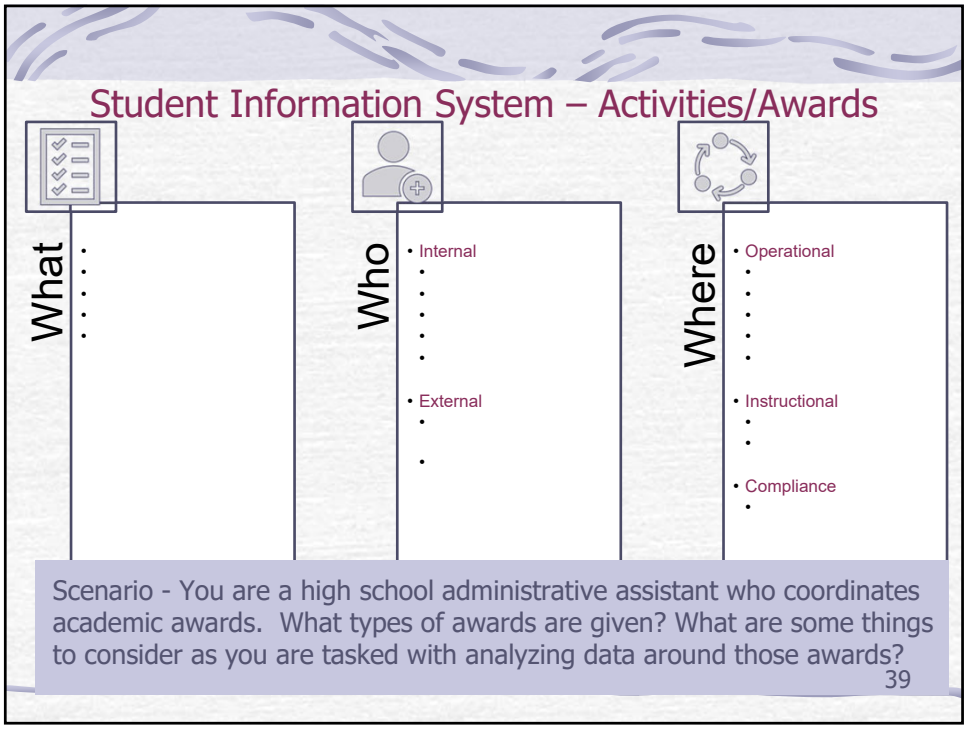
Student Information System – Activities/Awards
What
Who
Internal
External
Where
Operational
Instructional
Compliance
Scenario - You are a high school administrative assistant who coordinates academic awards. What types of awards are given? What are some things to consider as you are tasked with analyzing data around those awards?
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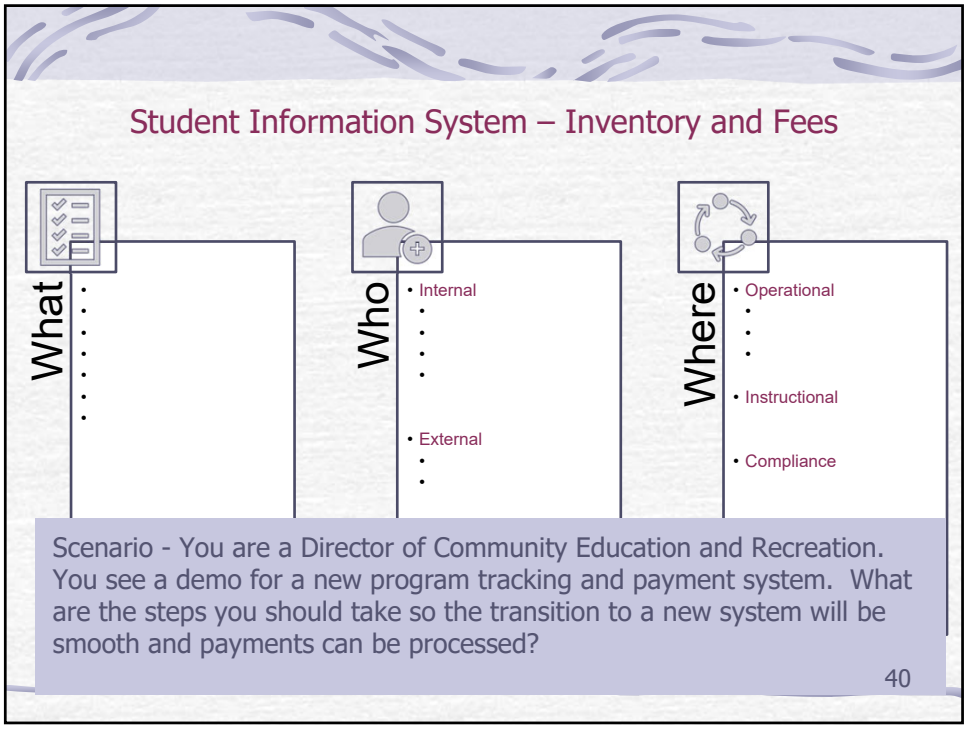
Student Information System – Inventory and Fees
What
Who
Internal
External
Where
Operational
Instructional
Compliance
Scenario - You are a Director of Community Education and Recreation. You see a demo for a new program tracking and payment system. What are the steps you should take so the transition to a new system will be smooth and payments can be processed?
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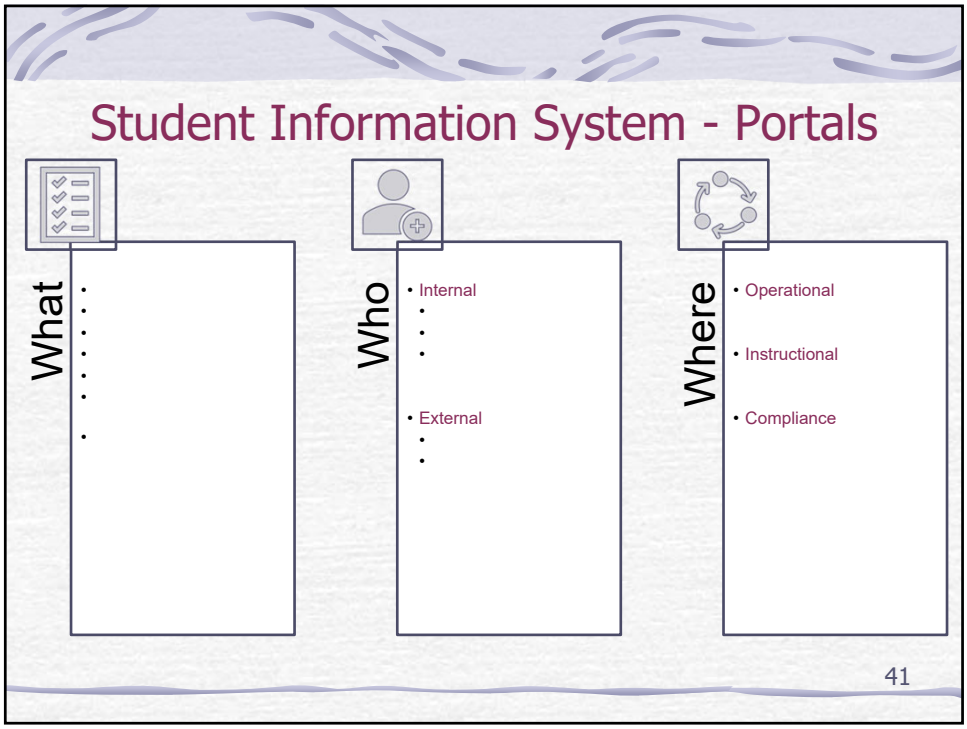

41

Student Information System

- Communications
  - Integrated third party communications systems
    - ✓ Will use scheduling data (class communications)
    - ✓ Will use demographic data (home phone, parent email)
    - ✓ Will use attendance data (student absent notifications)
    - ✓ Will use Food Service/Fee Management Data (notifications of low balance)
  - Does SIS capture communications between students/teachers, parents and teachers?
  - Does this system translate languages?

42

42

Student Data Life Cyle - 5

- Grade Promotion or Graduation
  - Students have been attending classes, receiving marks
  - Report cards and transcripts have been distributed
  - Students are audited for progress
  - Students are promoted, retained or graduated/withdrawn based on resolution
  - Next year begins and starts again

43

43

Trivia Time

- Visit kahoot.it

44

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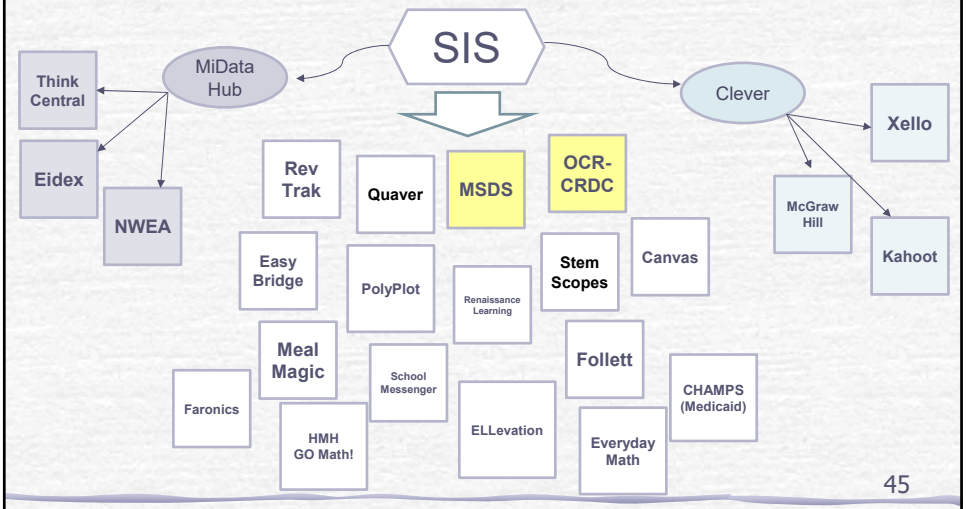
Data Integrity & Quality



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Data Integrity & Quality

Quality Assurance	Quality Control
• At point of data entry • Part of good system design • Ease of entry (# of clicks) • Text fields – manual text entry vs dropdown list • Date fields – manual entry vs calendar option • Required vs optional fields • Warning vs Error on data entry • Eliminate/Limit Redundancy	• After data entry • Identify • Fix • Who? Staff, students, parents, CEPI, third party software – via integration • Tools – Reports, parent/student portals, software/system tools • Ease of entry

46

46

Data Integrity & Quality

Maintaining data integrity with downstream applications

- Common "language" when sharing data
  - Data should mean the same thing in other systems
  - E.g. Attendance – what does "absent" mean?
- Data Standard Specifications – e.g. One Roster, Ed-Fi
- API (Application Programming Interface) – allows for a common interface between a system and multiple others
  - Used to integrate new applications with existing software systems.
  - acts as a gateway between two systems.
- Automation - regular updates that happen without intervention
  - Could be an API, or other method like simple file transfer

47

47

Check for Understanding

Talk amongst your table and list 3-5 examples where data integrity/quality can impact funding

48

48

Funding Implications

- FTE Claim (Enrolled Headcount vs Eligible Claim)
- Program Eligibility (e.g. Early-On) differs from Instructional Time (membership claim)
- Non-Residents
  - Sending district Foundation Allowance
  - If Special Education, may not be eligible
    - ✓ Requires sending district sign-off to assume PA18 funding for county costs
- Section 25e Reporting ($$ follows student)
- Medicaid Claims

49

49

Funding Implications

- Teacher Student Data Link Reporting
  - HR reports staff (REP Reporting) District reports TSDL
    - ✓ TSDL reports student's scheduled courses, teachers and marks/credit
  - State reviews REP and TSDL to ensure highly qualified staff are teaching courses they are credentialed to teach
  - Will result in loss of funding for all students teacher is not credentialed to teach
- Medicaid Claims

50

50

Compliance Implications

- Discipline
  - Emergency Seclusion and Restraint
  - Corporal punishment
- Disability
  - Individuals with Disabilities Education Act (IDEA)
  - Michigan Administrative Rules for Special Education (MARSE)
  - Americans with Disabilities Act (ADA)
- Privacy
  - Family Educational Rights and Privacy Act (FERPA)
  - Children's Online Privacy Protection Rule (COPPA)
  - Health Insurance Portability & Accountability Act (HIPPA)

51

51

Accountability Implications

Michigan School Index System - Are schools meeting performance targets in six areas required by ESSA

- Assessment Participation
- English Learner Progress
- Graduation Rate
- School Quality/ Student Success
  - Includes Chronic Absenteeism, Advanced Coursework, Postsecondary Enrollment, Access to Arts/Physical Education
- Student Growth
- Student Proficiency

52

52

Choosing an Application

- Application Features
- User Support
- Security and Access
- Centralized/Decentralized Application & Data Storage
- Backup and Recovery

53

53

Choosing an Application

Application features

- What is included in base product?
  - ✓ Enrollment, attendance, gradebook, parent portal etc
  - ✓ Special Education/Programs
  - ✓ Cafeteria/Food Service
  - ✓ Online Registration
- What is cost of additional modules outside of base product?
- What modules are not available and would require a third-party software
- Implementation
  - ✓ Data migration
  - ✓ Schedule
  - ✓ Initial Training

54

54

Choosing an Application

Application features

- Can the application satisfy district configuration and processes?
  - ✓ Online Registration
  - ✓ Schedule configurations
    - Cycle/alternate day
    - Block schedule
- Is all data stored in same database?
- Reports
  - ✓ Standard
  - ✓ Customized
- What are the fees for customizations and integrations?

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Choosing an Application

User Support

- How are support issues handled?
  - Trouble tickets
  - Post-implementation training
  - State and Federal Reporting updates
  - Integrations
    - ✓ MiDataHub
    - ✓ Third-party vendors
- Timeliness of support
- Consistency
- Tracking of service requests

56

56

Choosing an Application

Security and Access

- User Permissions
  - How granular can permissions be set?
    - ✓ Module
    - ✓ Individual data fields
    - ✓ Reports
- Security
  - Multi-factor Authentication
  - AD/LDAP support
    - ✓ Integrated with district network access
  - Single Sign On (SSO) support ("Sign in with Google")
    - ✓ Integrated with district network
- Privacy – FERPA, COPPA, (National School Lunch Act (NSLA)

57

57

Choosing an Application

- Centralized vs Decentralized Applications
  - Desktop vs web application
    - ✓ Desktop - application software on individual computers
    - ✓ Web – application software on web
  - Where is application hosted and managed?
    - ✓ Decentral – district or school
    - ✓ Central – ISD, Consortium or Vendor
  - How are upgrades and fixes handled?

	Pros	Cons
Centralized	• Benefit from group expertise • Benefit from group resources • Backup and recovery	• Potentially longer response times for problems • Tied to vendor/ISD upgrade schedule
Decentralized	• Less dependent on external connectivity • More control over performance • More customizable	• Hardware expense (application servers and database servers) • Staffing – need additional qualified staff

58

58

Choosing an Application

Backups and Recovery

- Testing and Training Environments
- Backups
  - Who is responsible
  - How often
  - Retention time frame
- Disaster recovery
  - Offsite copy
  - Ability and timeframe to restore

59

59

Wrap-Up What have you learned?

- Course Objectives
  - Introduction to student data points, how they are collected and who uses them
  - Aspects of data points in a Student Information System (SIS); e.g., Enrollment, Accounting, Discipline, Scheduling, Grades, Attendance, Health, Special Programs, State and Federal Reporting etc.
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