Dreading (or Loving) the Data
The How-To’s of Practical Assessment

Mari Wilhelm
Margaret Stone

University of Arizona
Goals of Session

- Practical advice for how counselors can gauge the success of their interventions
- Relevant assessment frameworks counselors can use to guide their assessment process
- How to develop relevant research questions
- How to avoid bias in implementing assessments
- How to create appropriate survey questions, what to avoid
- An exploration of the data that is already typically collected in schools and how counselors can tap into that data
- Tips or software suggestions for easily managing and analyzing data

What Is Your Relationship with Data?

- Hostile?
- Dread, Mostly?
- Nonexistent?
- Reactive?
- Proactive?
- Love?
Paradigm Shift in the Counseling World

*From:* Monitoring only process and measuring services delivered

*To:* Focusing on results and measuring outcomes connected to school improvement

Your Inner Researcher

- You ARE your own best researcher
  - You know your own population best
- You ASK Questions and ANALYZE data on a regular basis
- You have ACCESS to knowledge and information
  - School Record Data, school/district statistics websites
  - Internet
    - Outcome studies offer information about what works
    - Information to help avoid re-inventing the wheel (e.g. survey questions)
Relevant assessment frameworks counselors can use to guide their assessment process
- How to develop relevant research (or evaluation) questions
- How to create appropriate survey questions

A Model for Evidence-Based School Counseling Practice
Adapted from Carey and Dimmitt (2008)

1. Describe ‘Problem’
   What needs to be addressed?

2. Consult Outcome Research
   What is likely to work?

3. Evaluate the Intervention
   Did the intervention make a difference?
Logic Models

Program Evaluation Matrices

A logic model is…

- A depiction of a program showing what the program will do and what it is to accomplish.
- A series of “if-then” relationships that, if implemented as intended, lead to the desired outcomes.
- The core of program planning and evaluation.
A logic model…

Is a framework for describing the relationships between investments, activities, and results.

Provides a common approach for integrating planning, implementation, evaluation and reporting.
**Figure 1.0** CAP Program Evaluation Matrix

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>INPUTS</th>
<th>OUTPUTS (Process)</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Activities</td>
<td>Participation</td>
</tr>
<tr>
<td>Law number of ethnic minority, low-income, 1st generation students in college. Program intends to target one main root cause of problem: &quot;Parental Knowledge&quot;</td>
<td>University of Arizona Office of Early Academic Outreach Staff; Faculty; Volunteers; Time &amp; Expertise</td>
<td>(1) 10-week workshop covering following topics: - Relationship building - School Communication - Academic Expectations &amp; Preparation - College information - Core subjects - Transition (2) Field Trips to Uof A (3) Kick-Off Celebration (4) Graduation Reception</td>
<td>Parents/Parents/Family/Program coordinators/Parent/Family</td>
</tr>
<tr>
<td>College Camp</td>
<td>Children (4-11yrs)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Dynamic Theoretical Model**

**Academic Success**

- Individual Assets Relationships
- Culture of Academic Achievement
- Academic Success
- Academic Attitude
- Persistence Skills/Habits

**Figure 2.0** Dynamic Theoretical Model
GEAR UP Basic Model

Specified Program Components CAUSE Improved Behavior CAUSE Enrollment in Post Secondary Education

Model of Our Theory of Change

Specified Program Components affect Chosen Determinants (Risk and Protective Factors) that affect Important Academic Behaviors which, in turn, affect Rates Post-Secondary Enrollment

* Adapted from Douglas Kirby’s Behavior-Determinant Intervention Logic Model Concept
Student Data-Theoretical Model

Chosen Determinants-Risk & Protective Factors

- College Knowledge Aspirations Expectations
- Individual Assets: Resiliency, Self-Concept, Goal-Setting, Career Information
  - Skills: reading, math, test-taking, writing, technology
- Relationships: parents, teachers, conventional peers

Culture of Achievement

- Academic Attitude: Persistence, Engagement, Skills, Habits
  - Motivation: Personal Learning Goals, Self-Regulated Learning
  - Control strategies

Academic Outcomes: On-Time Math Course Completion
- Increased Parent/Student College Knowledge (GPRA Obj 1, 3)

Academic Outcomes: High School Graduation Rates
- Post-Secondary Enrollment, Success (GPRA Obj 2)

Constructive Time-Use

College Academy for Parents Program Evaluation Logic Model

Knowledge (Awareness):
- Workshops aimed at providing general and specific school knowledge
- Exposure to University: Short-term Goals:
  - 1. Increase knowledge awareness in Academic subjects
  - College system

Attitudes:
- Parent's perception of child's academic competence
- Parent's academic aspirations for their child
- Parent's educational attitudes
- Short-term Goal:
  1. Increase parental aspirations

Skills (Perceptions):
- Parent's perception of his or her own self-competence

Behavior:
- Increase Parental Academic Role Self-Competence in their child's education
- Long-term Goals:
  1. Increase parental involvement
  2. Improve communication with child and school:

Medium Goal:
- Parental application of what has been learned

Use weekly assessments to evaluate:
1. Knowledge gained through workshops
2. Process (is program being implemented as intended)
3. Participant satisfaction

To measure Attitudes, items from the following instruments were referenced:
- Parent's Perception of child's academic competence
- National Survey of Latinos: Education
- Attitudes toward school
- Inventory of Parental Influence
- Parental Aspirations

To measure Skills (perceptions), items from the following instruments were referenced:
- Parenting sense of competence
- Parental role
- Use weekly assessment to evaluate how parents are applying what they have learned

To measure Behavior items from the following instruments were referenced:
- Parent Involvement
- Parental Role
- College bound mentality

Long-Term Goal: Child's Academic Success
Research (or Evaluation) Questions

1. Is increased awareness of college entrance requirements associated with increased educational aspirations for their child?
2. Is increased awareness of factors that motivate student study skills associated with parents’ perception that they influence their child’s academic success?
3. Do changes in parental educational aspirations for their child result in parents who increase the time they help their child with homework?
4. ??
5. ??

- An exploration of the data that is already typically collected in schools and how counselors can tap into that data
- Tips or software suggestions for easily managing and analyzing data
Multiple Uses of Data

- Creates urgency for change in system
- Serves as a catalyst for focused attention
- Challenges existing policies
- Engages decision makers, district leaders, school teams in data driven decision making
- Reveals evidence of access or equity issues
- Focuses resources where they are most needed
- Supports grant writing efforts

Program Evaluation Data:

- Process Data
- Student Attitudes/Knowledge Data
- Results Data
Process data

- "What you did for whom"
- Documentation about the intervention activity
- Did the program follow the prescribed practice?

**Examples**
- Six counseling groups with 8 students each were held
- 450 9th grade students were seen individually to prepare 4 year plan.

Student Attitudes/Knowledge Data

- Measures knowledge gained or attitudes/beliefs of students through surveys (especially pre-post design)
- Resource: CDC Compendium of Assessment Tools

**Examples**
- Knowledge Gained
  - 89% of students demonstrate knowledge of promotion/retention criteria
  - 78% know the name of their school counselor
- Attitudes or Beliefs
  - 74% of students believe post-secondary education is important to their future
Results Data

- "So WHAT" data
  - Demonstration that your program has (or has not) positively impacted students’ knowledge, attitudes and skills enough to change relevant behavior
    - Attendance
    - Behavior
    - Academic achievement

Examples
- 42 students on the retention list avoided retention
- Graduation rates improved 14% over three years
- Attendance improved among 9th grade males by 49%

Results: Achievement-Related Data

- Data regarding behaviors known to be associated with academic achievement

Examples
- Course enrollment patterns
- Discipline referrals
- Suspension rates
- Alcohol, tobacco and other drug violations
- Attendance rates
- Parent involvement
- Extracurricular activities
Moving Beyond Averages

- Longitudinal Data
- Disaggregated Data
- Cross-Tabulated Data

...for digging beneath the averages!

Disaggregate Data

- Gender
- Ethnicity
- Socio-economic status
- Language
- Special Education
- Grade level
- Teacher
### Analyses To Consider

- GPA
- Assessment scores
- Enrollment in challenging courses
- Promotion/retention rate
- Graduation rates
- Dropout rates
- Percentage of students enrolling in postsecondary education
- Number of students with career and education plans at the high school level
- Number of students with career and education plans at the middle school level
- School attendance rates
- Discipline referrals
- Number of special education referrals

- Disaggregate by
  - Gender
  - Class (2008, 2009, 2010, etc)
  - Ethnicity
  - Groups of interest to you

- Create Crosstabulations
  - Compare across groups
  - Compare across time

- Excel works great!

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### Steps for Crosstabulation: 9th Grade Data Across Time

<table>
<thead>
<tr>
<th>Class of</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of students with excessive absences in first semester 9th grade</td>
<td>30</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Percentage of students retained in 9th grade</td>
<td>20</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Percentage of students with disciplinary referrals in first semester of 9th grade</td>
<td>21</td>
<td>18</td>
<td>15</td>
</tr>
</tbody>
</table>
## Highlight cells and click chart icon

### Table

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<td>20</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Average GPA in 1st semester 9th grade</td>
<td>1.4</td>
<td>1.8</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Are new initiatives at VHS associated with increased passing rates and decreased suspensions?

**Results**

Baseline Data:
- Fall Semester: 33 suspensions; 71% passing rate
- Spring Semester: 14 suspensions; 78% passing rate

**Systemic Changes**

1. Collaboration efforts with administrators, teachers and parents changed school climate by moving to a rewards system for courses passed.
2. The counselors initiated data-driven decision making.

**The Human Story**

All ninth grade students were honored at an Awards Ceremony and received certificates based on grades and courses passed for promotion. Parents were invited to the Ceremony and Business Partners supplied refreshments.
What Does the Data Tell Us?

Logic Model: What Needs to Change to Move the Data?

- Attitudes
  (Which ones and whose?)
- Behaviors
  (Which ones and whose?)
- Teaming
  (New or revisited collaborations?)
References

- Krantz, L. I've got the data blues: Using data to effect change in school counseling programs (Wisconsin DPI).
- University of Wisconsin Extension: http://www.uwex.edu/ces/plannde/evaluation/evallogicmodel.html

For further information, please contact:

Evaluation Research and [Program] Development (ERAD)

The University of Arizona
Babcock 1101
1717 E Speedway
Tucson, AZ 85719
520-621-3902 * 520-626-4433
Mari S. Wilhelm, Ph.D. Margaret R. Stone, Ph.D.
wilhelm@ag.arizona.edu mrstone@ag.arizona.edu