

Plug and Play: Developing a Flexible Program Assessment Model

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UNIVERSITY OF MINNESOTA

Driven to DiscoverSM

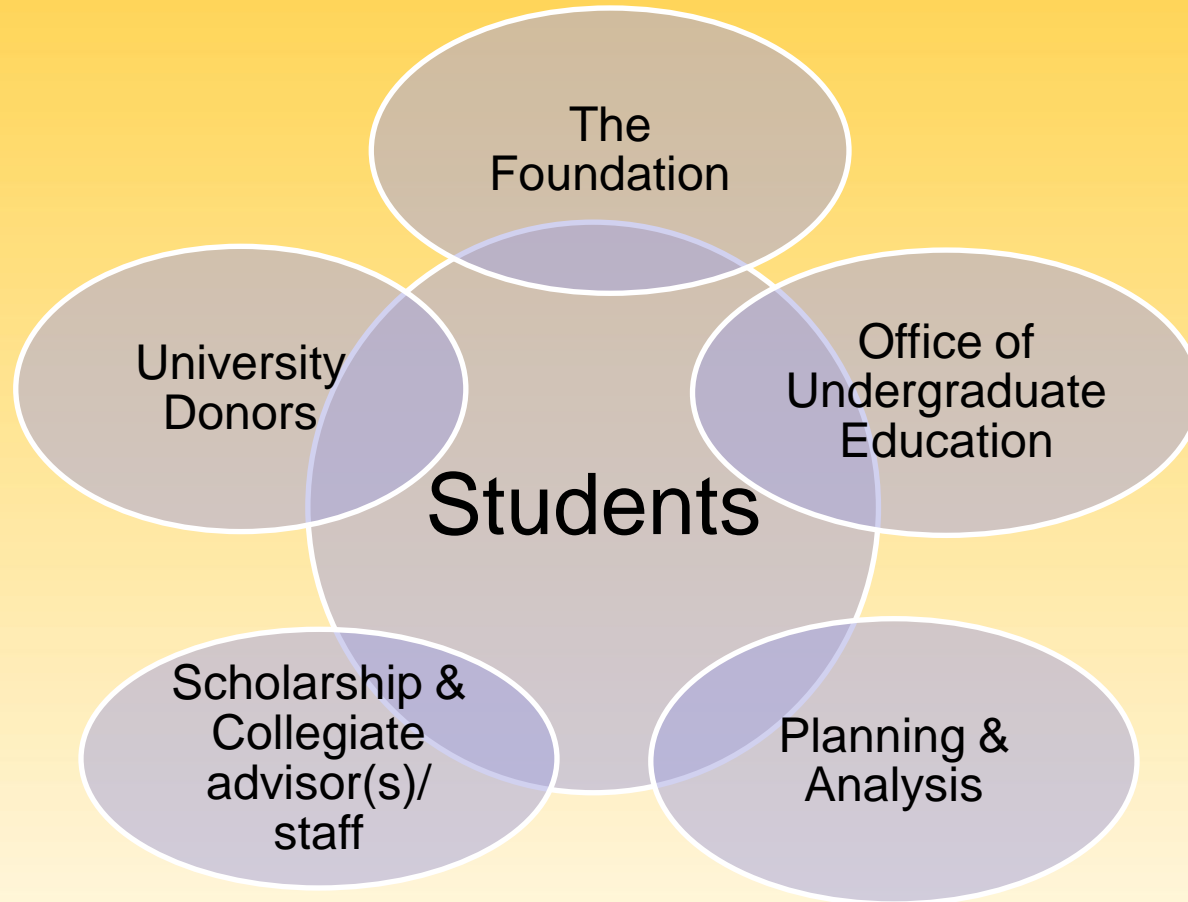
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Outline: Today's Presentation

- The Stakeholders
- The Framework
- Assessment Process/Plan “Actions”
- Test Case of Plug & Play Program Assessment
- Next Steps



The Stakeholders

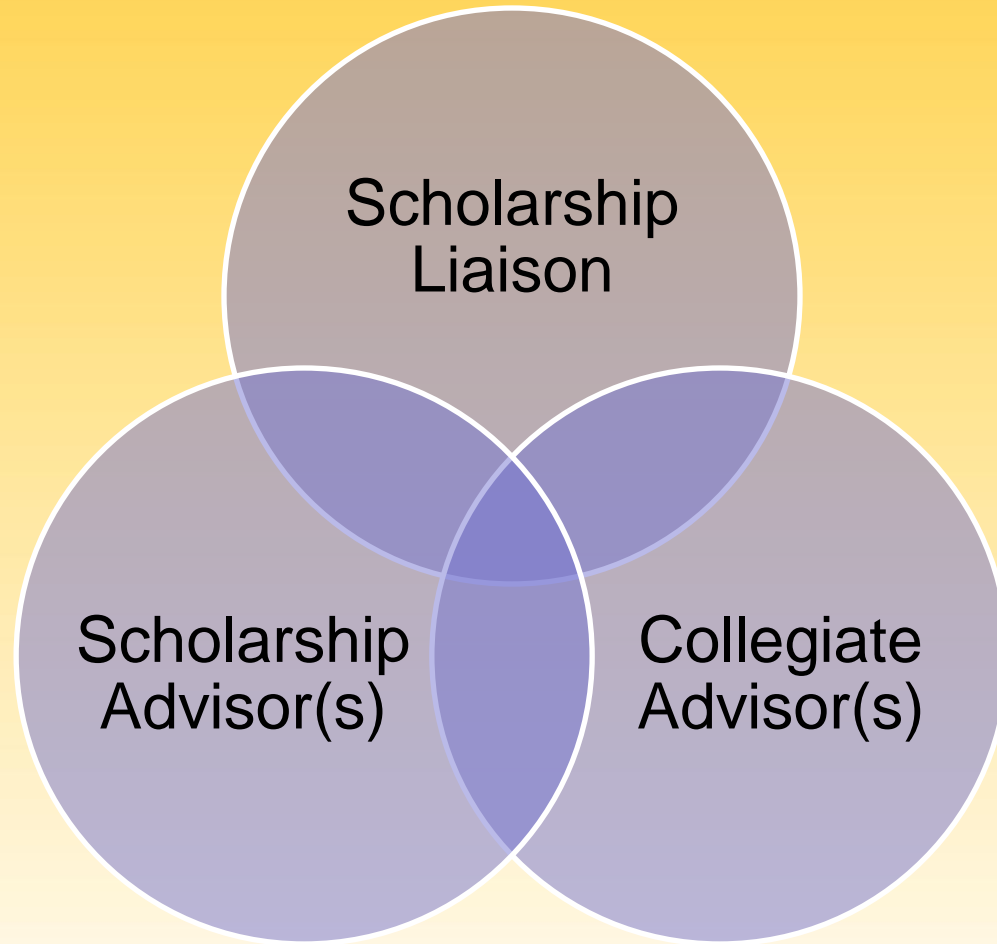


Students

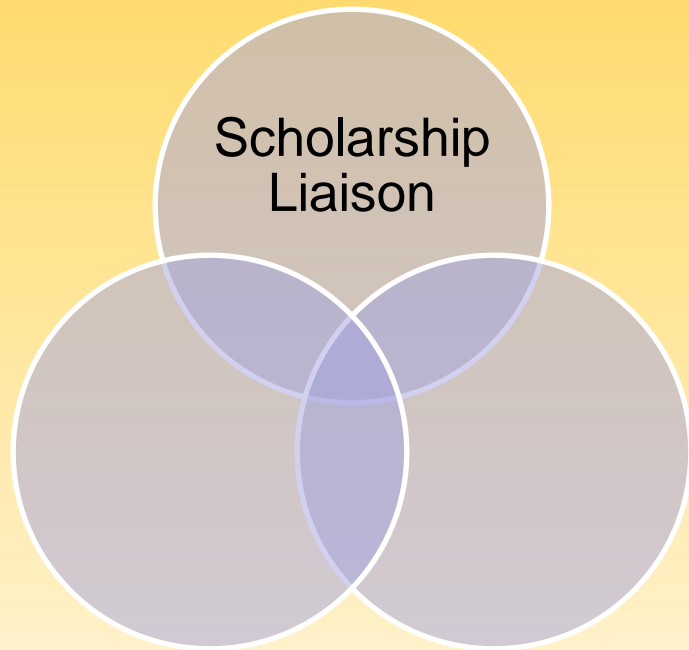
- University goal: develop exceptional students
- Improve their experiences & outcomes
 - Affordability of the U
 - Programs are effective
 - Student based feedback is critical
- Creating a sense of community



Program Staff



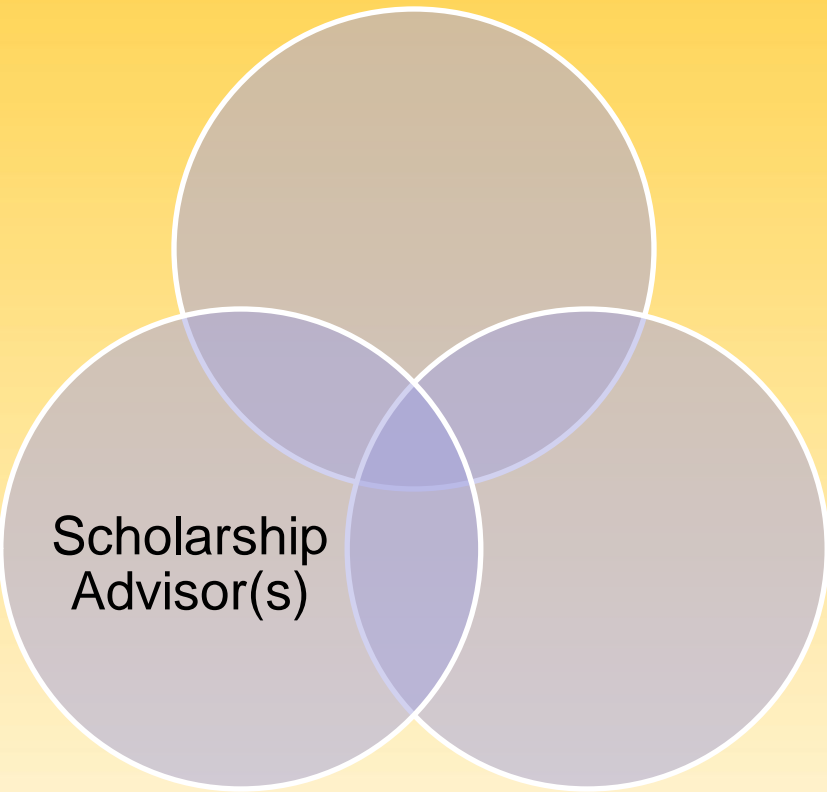
Scholarship Liaison



- Works as liaison between the donor and students, scholarship and collegiate advisors
- Gather basic data on scholarship programs



Scholarship Advisor(s)

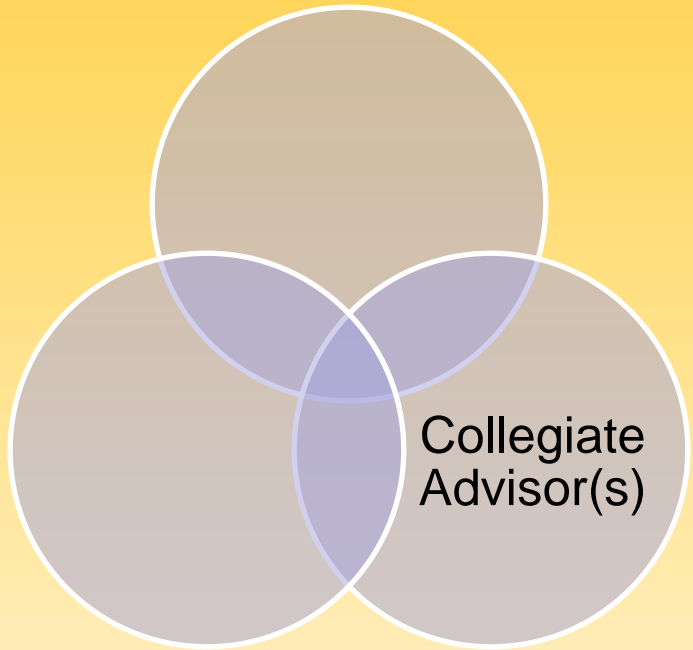


Scholarship
Advisor(s)

- Meet with, discuss goals, environment and program delivery as well as the “stories” of staff involved directly with scholarship program
- Benefits
 - Improved researcher access to students
 - Better understanding of program context and subtleties



Collegiate Advisor(s)



- Work directly with the students on meeting academic requirements, scheduling classes and navigating the University
- Provide a view of the environment from an academic perspective



Foundation/Donors

- Donor recruitment/management
- Undergraduate Scholarship programs
 - *McGuire*
 - *Wallin*
 - *Benson*
 - *Larson*



Office of Undergraduate Education

- Office served as a liaison between all Players
 - Foundation & Donors (presented findings & donor feedback)
 - Scholarship program staff
 - Access to students/contextual background
 - Office of Planning and Analysis (model development)
 - Central records, statistical analysis and focus groups
- Closed the loop



Planning and Analysis

- OPA – *Leadership and vision*
 - *Develop outcomes assessment framework*
 - *Develop and delivery summary report to Academic Affairs*
- OIR – Quantitative: *Descriptive and multivariate modeling, analysis & reporting*
- OMS – Qualitative: *focus groups, analysis & reporting*



General Assessment Framework

- Goals
 - Develop consistent, replicable process for assessment of scholarship programs & donor management*
 - Identify best practices in these programs [program evaluation]
- Utilize well-established, defined statistical model of student success
 - – “plug and play” add program participation variable
 - Easily identify the “impact” of program participation
- Incorporate qualitative dimension
 - Provides flexibility & fill in “gaps” of model, strengthen and enrich analysis, broaden outcomes beyond model



University of Minnesota Scholarship Assessment Plan

Step 1

- Coordinate data collection and monitor semester by semester program participants
 - Have hired scholarship monitor (1 FTE)

Year 0: Start

- All students are coded in the system
- Initial survey of students (common Freshman survey)
- Several small focus groups at Welcome Week
- Selection of comparison set of students for longitudinal analysis
- Instruction with graduation and engagement planner
- Discuss creation of a formal student group



Step 2

Years 1-4: Quantitative

- Yearly standardized data analysis (for both scholarship students and comparison set)
 - Cumulative GPA
 - Credits completed
 - Major declared/completion
 - Progress towards degree
 - Liberal Education Requirement Status
 - Financial Aid Status and packaging
 - Retention



Step 2 cont.

Years 1-4: Qualitative

- Focus groups for scholarship students
 - Impact of financial Support,
 - Programmatic support,
 - Perceived benefits, and
 - Ideas for improvements
- Focus group for advisors
 - Specific concerns
 - College Transfer
 - Level of engagement/co-curricular activities
 - Reasons for nonretention (drop out, stop out, transfer)



Step 3

- **Graduation**
 - Exit interview/survey
 - Post graduation survey
 - Final fiscal analysis (debt load)
 - Assistance with creating an alumni group



Assessing Program Effects: Example

- In response to questions about how well students participating in the Scholars program performed academically, we utilized a mixed-methods approach.
 - Combining quantitative regression models on the relationships of program participation and student success with focus groups of the scholars that expanded model results and delved beyond the quantitative models.
- Questions:
 - Do scholarship program participants succeed at a higher level than similar students not in the program?
 - What were the perceived benefits of the program, the impacts of financial and programmatic support, and students' ideas for improvements in the program?



Outcomes

Indicator of success	Scholars Program Participants	All Other Twin Cities Freshmen	Difference
First-year GPA	3.01	3.09	-0.08
1 st year Retention	93%	88%	5%

N=148 Scholarship program participants, 2006 & 2007 First-time Entering Freshmen



Model

- Areas
 - Academic background/preparedness
 - First semester performance
 - Demographics
 - Geographic origin
 - Financial Aid
 - Social Integration
 - Control



OLS & Logit Parameter Estimates: Academic Background

Area	Predictor	OLS Model: First Year GPA				Logit Model: 1 st Year Retention		
		Coef.	Std. Beta	SE	Prob	Coef.	SE	Prob
Academic Background	ACT Composite	0.025	0.145	0.002	▲	0.040	0.012	▲
	High School Rank	0.008	0.155	0.000	▲	0.004	0.003	
	First Generation	-0.076	-0.052	0.012	▼	-0.227	0.079	▼
	First Choice College	0.010	0.006	0.013		0.059	0.083	
	Advanced Placement Credits	0.005	0.067	0.001	▲	0.026	0.006	▲
	Remedial Course Taken	0.102	0.016	0.049	△	0.882	0.314	△

▲ p < .001

△ p < .01

△ p < .05



OLS & Logit Parameter Estimates: Academic Performance & Demographics

Area	Predictor	OLS Model: First Year GPA				Logit Model: 1 st Year Retention		
		Coef.	Std. Beta	SE	Prob	Coef.	SE	Prob
First Semester Performance	Course Completion Ratio	0.023	0.566	0.000	▲	0.036	0.002	▲
	C Count	.	.	.		-0.244	0.039	▼
	D Count	.	.	.		-0.476	0.076	▼
Demographic Characteristics	Female	0.114	0.081	0.011	▲	-0.188	0.076	▽
	19 Years or Older	0.039	0.020	0.015				
	Asian	-0.018	-0.009	0.017		0.720	0.124	▲
	Underrepresented Minority	-0.058	-0.023	0.021	▽	0.311	0.133	△

▲ p <.001

▲ p <.01

△ p <.05



OLS & Logit Parameter Estimates: Geographic/Financial/Social & Cohort

Area	Predictor	OLS Model: First Year GPA				Logit Model: 1 st Year Retention		
		Coef.	Std. Beta	SE	Prob	Coef.	SE	Prob
Geographic Origin	Out-of-State	-0.039	-0.013	0.023		-0.738	0.145	▼
	Reciprocity	-0.013	-0.008	0.013		-0.647	0.088	▼
Financial Aid	Scholarship Participant	0.127	0.023	0.043	▲	1.105	0.362	▲
	Unmet Need	-0.004	0.001	0.000	▼	-0.243	0.005	▼
Social Integration	On Campus Residence	0.054	0.039	0.013	▲	1.075	0.097	▲
Control	2007 Cohort Year	-0.026	-0.019	0.013	▽	-0.685	0.094	▼
Constant		-0.428		0.057		-2.166	0.381	

▲ p < .001

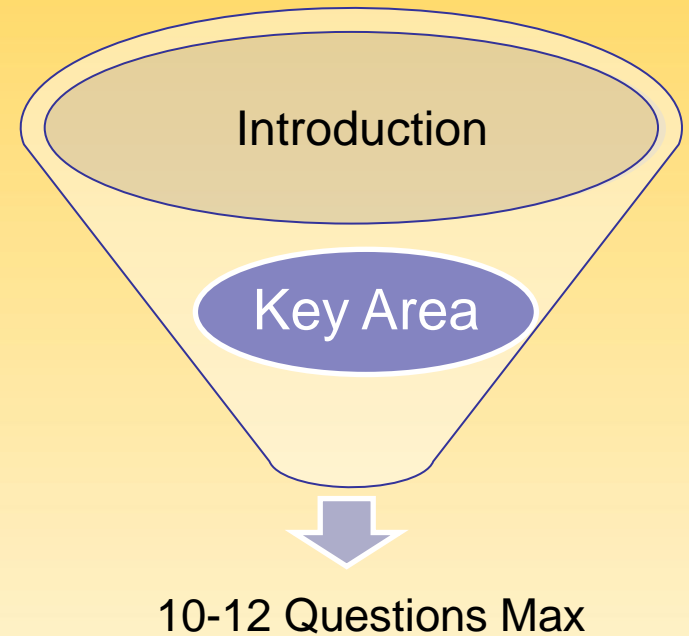
▲ p < .01

△ p < .05



Qualitative Analysis

- Methodology
 - Systematic
 - Verifiable (bread crumbs)
- Question Development
 - Review of data that had been collected by OIR
- Main Priorities
 1. Impact of financial Support,
 2. Programmatic support,
 3. Perceived benefits, and
 4. Ideas for improvements



Results

- The analysis was then reviewed and summarized into a three page Executive Summary that was presented to the project team and the Dean of Undergraduate Education Bob McMaster.



Topic 1: Impact of Financial Support

- “I didn’t even think about the University of Minnesota as an option before. The financial part was huge for me...”
- “One thing that was really helpful was writing the thank you letter to the every year. It really helped motivate me to pursue what I want to do, and how my life is changing and what I’m doing”



Topic 2: Impact of Programmatic Support

Area: Advising

- “I expected no one to really care that much – in a big school you can get lost really easily. She knew you and got to know you personally [...] she was like another mom, who was going to make sure you stayed on track and let you know when you were getting out of line”
- “I really like that they email scholarship opportunities [...] there are a lot of resources within the email that we can look into”

Area: EDGE Week Experience

- “One thing that maybe jump-started it for all of us was having the week-long program before school started [...] That’s sort of what jump started all of us getting involved in student groups and other things. It was an opportunity to meet people right away [...] motivated me to get involved in student groups right away.”



Summary

- *Plug & Play Assessment: fairly easy to do, with well developed model*
 - *Controlling known factors related to student success, isolate effect of program participation*
 - *Helps avoid common temptation to make hasty judgments based on zero-order “descriptive” findings*
 - *Incorporating both a quantitative & qualitative component broadens the assessment while providing a different perspective that some stakeholders prefer*
- *Results incorporated into an overall executive summary to VP*
 - *Utilized in meeting with Foundation and Donors*



Future steps

- Fully Implement Assessment Plan
 - Identify control/comparative groups and identify selection factors used in scholarship programs
- Develop standard reporting template
- Vehicle for recruitment for future donors



Questions?



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