## **Research Design Session**

Phase 1 –Goal Success Measures (Independent Variables) - Definitions & Options

The Research Cycle
 Metric Definitions
 Example: Honors Program Completion Study

	Measure & Options	Course Sequence	Support	Student Preparation	Special Populations	
Co	urse Completion		Х			
•	Successful Completion (A, B, C, P) with W in Denominator					
•	Successful Completion (A, B, C, P) without W in Denominator					
•	Course Retention: ABCDFPNP / ABCDFPNPW Successful Completion After Multiple Attempts					
	Oddocooldi Completion / titel Maltiple / titemple					
Basic Skills: Reading, English, ESL, Math: credit & noncredit		Х	Х	X		
•	Successful Course Completion					
•	Enrolled in Next Course					ea
•	Successful Completion of Next Course					Ā
•	College Ready (Meet Prereq for Math 71 & English 1A)					se cus /
•	Transition from Noncredit to Credit					유
						Group Exercise Match Metric with Focus Area
Tra	ansfer		Χ			g is
•	Actual Transfer with 60 units					et 2
•	Actual Transfer with <60 units					ٯ≥
•	Transfer Ready (60/2.0 + Pass Transfer Math or English)					atch
•	Transfer Ready (60 + Golden 4 <sup>1</sup> )					Σ
De	gran Completion	X	X	X		
DE	gree Completion	^	^	^		
•	Associate					
•	Certificate 18 units or more					
•	Certificate 17 units or less					
•	Noncredit					
Access					X	
•	Mt. SAC Enrollment as % of District Adult Population					
•	Mt. SAC Enrollment as % of District 19-64 Population					
•	By Priority Registration Status					
•	Access to Specific Program					

<sup>&</sup>lt;sup>1</sup> 1) Oral Communication, 2) Critical Thinking, 3) Math/Quantitative Reasoning, 4) Written Communication

Phase 2 – Disproportionate Impact: The Five Equity Demographic Areas

- How to Calculate the 80% Rule; How to Calculate Proportionality
- Sample Data on Disproportional Impact on the Five Equity Areas
- Group Exercise: Proportionality or 80% Rule PLUS basis groups as ALL or DOMINANT

## Phase 3 – Creating the Research Question: Stating the Dependent Variable

• Group Exercises: Writing the Research Question; Combining Issues; Extending Research

Basic Skills      Effect of Entering at Lowest Basic Skills Level	Independent Variable (Stands Alone; Input)	Dependent Variable (Something that depends on Other Factors; Output)					
Basic Skills  Effect of Entering at Lowest Basic Skills Level  Effect of Basic Skills Stop Out  Program Path or Random  Program Path or Random  Program Prerequisite  Student Awareness and Understanding (Number of Courses Needed in a Program)  Support  Participation in Orientation  Academic Readiness  Motivation & Connectedness  Online Tutoring  Extent of Support Service Use: Tutoring, Counseling etc.  Completion  Degree Completion  Transfer  Accessing Learning Support: Tutoring, etc.  Accessing Learning Support: Tutoring, etc.  Accessing Counseling Early  Use of Feedback on Transfer Progress: MAP, etc.  Student Preparation  Curriculum Alignment Between Levels  High School Preparation in Basic Skills  Degree Completion  Special Populations  Registration Priority  Access to Technology	Course Sequence						
Effect of Basic Skills Stop Out Program Path or Random Program Prerequisite Student Awareness and Understanding (Number of Courses Needed in a Program)  Support  Participation in Orientation Academic Readiness Motivation & Connectedness Online Tutoring Course Completion Extent of Support Service Use: Tutoring, Counseling etc. Completing Program but Not Degree Support Incorporated with Instruction Accessing Learning Support: Tutoring, etc. Accessing Counseling Early Use of Feedback on Transfer Progress: MAP, etc.  Student Preparation Curriculum Alignment Between Levels High School Preparation in Basic Skills Degree Completion  Special Populations Registration Priority Access to Technology		Taking Basic Skills Early					
Course Completion  Program Path or Random Program Prerequisite Student Awareness and Understanding (Number of Courses Needed in a Program)  Support  Participation in Orientation Academic Readiness Motivation & Connectedness Online Tutoring Course Completion Extent of Support Service Use: Tutoring, Counseling etc.  Completing Program but Not Degree Support Incorporated with Instruction Accessing Learning Support: Tutoring, etc.  Accessing Counseling Early Use of Feedback on Transfer Progress: MAP, etc.  Student Preparation Curriculum Alignment Between Levels High School Preparation in Basic Skills Degree Completion  Special Populations Registration Priority Access Access to Technology	Basic Skills						
Support		Effect of Basic Skills Stop Out					
Student Awareness and Understanding (Number of Courses Needed in a Program)    Support		Program Path or Random					
Support  Participation in Orientation  Academic Readiness  Motivation & Connectedness  Online Tutoring  Extent of Support Service Use: Tutoring, Counseling etc.  Completion  Degree Completion  Transfer  Accessing Learning Support: Tutoring, etc.  Accessing Counseling Early  Use of Feedback on Transfer Progress: MAP, etc.  Student Preparation  Curriculum Alignment Between Levels  High School Preparations Upon Entry  Not Prepared Academically  Special Populations  Registration Priority  Access  Access to Technology	Course Completion	Program Prerequisite					
Basic Skills  Participation in Orientation Academic Readiness Motivation & Connectedness Online Tutoring Extent of Support Service Use: Tutoring, Counseling etc. Completion  Degree Completion  Transfer  Accessing Learning Support: Tutoring, etc. Accessing Counseling Early Use of Feedback on Transfer Progress: MAP, etc.  Student Preparation  Curriculum Alignment Between Levels High School Preparation in Basic Skills  Degree Completion  Special Populations  Registration Priority Access Access to Technology		Student Awareness and Understanding (Number of Courses Needed in a Program)					
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Motivation & Connectedness   Online Tutoring		Participation in Orientation					
Online TutoringCourse CompletionExtent of Support Service Use: Tutoring, Counseling etc.Degree CompletionCompleting Program but Not DegreeSupport Incorporated with InstructionAccessing Learning Support: Tutoring, etc.Accessing Counseling EarlyUse of Feedback on Transfer Progress: MAP, etc.Student PreparationBasic SkillsCurriculum Alignment Between LevelsHigh School Preparation in Basic SkillsLow Student Expectations Upon EntryNot Prepared AcademicallySpecial PopulationsRegistration PriorityAccessAccess to Technology	Basic Skills	Academic Readiness					
Extent of Support Service Use: Tutoring, Counseling etc.   Completing Program but Not Degree		Motivation & Connectedness					
Degree Completion  Completing Program but Not Degree Support Incorporated with Instruction  Accessing Learning Support: Tutoring, etc.  Transfer  Accessing Counseling Early Use of Feedback on Transfer Progress: MAP, etc.  Student Preparation  Curriculum Alignment Between Levels High School Preparation in Basic Skills  High School Preparation Upon Entry  Not Prepared Academically  Special Populations  Registration Priority  Access  Access to Technology	Course Completion	Online Tutoring					
Completing Program but Not Degree	Course Completion	Extent of Support Service Use: Tutoring, Counseling etc.					
Accessing Learning Support: Tutoring, etc.  Accessing Counseling Early Use of Feedback on Transfer Progress: MAP, etc.  Student Preparation  Curriculum Alignment Between Levels High School Preparation in Basic Skills Low Student Expectations Upon Entry Not Prepared Academically  Special Populations Registration Priority Access Access to Technology	Dograe Completion						
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Student Preparation  Curriculum Alignment Between Levels High School Preparation in Basic Skills  Low Student Expectations Upon Entry Not Prepared Academically  Special Populations  Registration Priority  Access Access Access to Technology	Transfer	Accessing Counseling Early					
Basic Skills  Curriculum Alignment Between Levels High School Preparation in Basic Skills Low Student Expectations Upon Entry Not Prepared Academically  Special Populations Registration Priority Access Access Access to Technology		Use of Feedback on Transfer Progress: MAP, etc.					
Basic Skills  Curriculum Alignment Between Levels High School Preparation in Basic Skills Low Student Expectations Upon Entry Not Prepared Academically  Special Populations Registration Priority Access Access Access to Technology	January Committee of the Committee of th						
High School Preparation in Basic Skills  Low Student Expectations Upon Entry  Not Prepared Academically  Special Populations  Registration Priority  Access  Access Access to Technology	Student Preparation						
Degree Completion    Degree Completion   Low Student Expectations Upon Entry	Bacio Skille	Curriculum Alignment Between Levels					
Not Prepared Academically  Special Populations  Registration Priority  Access Access to Technology	Dasic Skills	High School Preparation in Basic Skills					
Special Populations Registration Priority Access Access to Technology	Dograe Completion	Low Student Expectations Upon Entry					
Registration Priority Access Access to Technology	Degree Completion	Not Prepared Academically					
Registration Priority Access Access to Technology							
Registration Priority Access Access to Technology	Special Populations						
Access to Technology							
	Access	· ·					
Outreach/College Awareness in the District Communities		Outreach/College Awareness in the District Communities					

Phase 4: Characteristics of "Successful Students" and of "Unsuccessful Students"

Group Exercise: Intuition on characteristics "cuts" of data to define the two student groups
 Student Characteristics

MIS Data Elements: Student Basic, Student Success Data Elements, Special Population Local: ACES, ARISE, etc.

## Population Sample Characteristics

Cohort or Snapshot? Day or Evening Section? Adjunct or Fulltime Faculty? Su, Fa, Wi, Sp Term? In Person or Online Course? Division & Department of Course/Program?

• Group Exercise: Do group characteristics lead to actionable intervention strategy or is qualitative research needed to define the "why?"