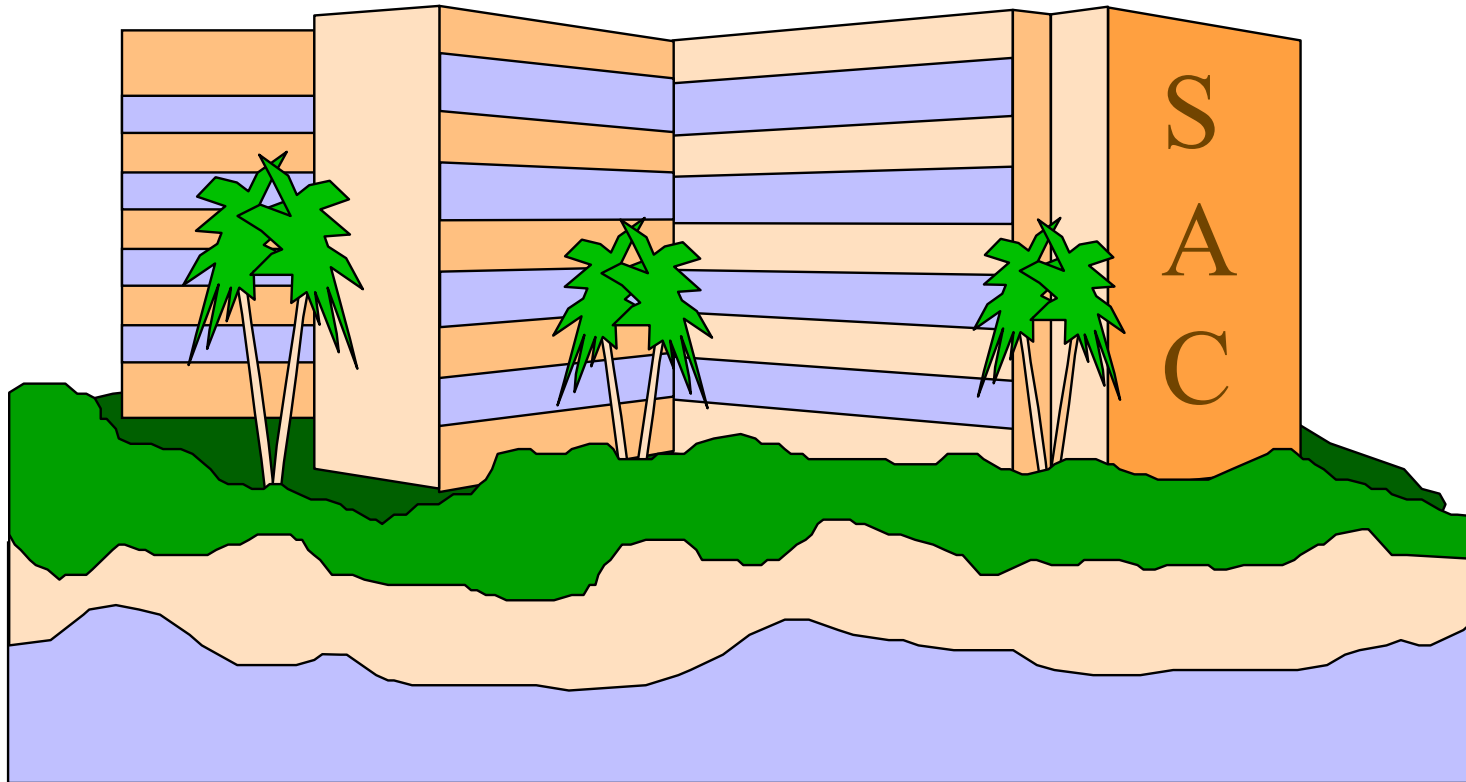


Measuring Student Outcomes via Assessment Center Methods: CSUF's SAC Project



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U.S. Department of Education

Title VIII

Research Grant

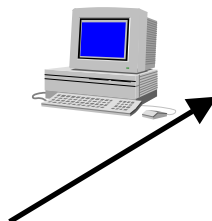
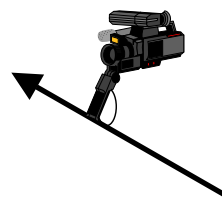


- Identify career readiness of undergraduate business majors
- Develop cost effective outcome assessment methods
- Measure the value-added skill learning associated with a business internship

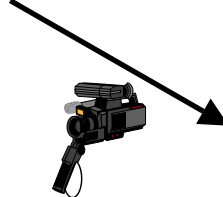
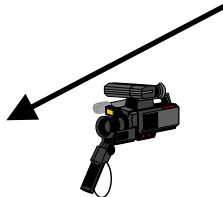
**LEADERSHIP
SKILLS**



**ADMINISTRATIVE
SKILLS**



Student Assessment Center



**SELF-PRESENTATION
SKILLS**



**PUBLIC SPEAKING
SKILLS**

Public Speaking Skills

Assessment Center Method : *Oral Presentation*

1 Minute Videotaped Presentation Evaluated
by Business Faculty & Trained Students

TOPICS INCLUDE : Universal Health Care, Minimum Wage Increase



- Topic Organization
- Logical Thinking
- Persuasiveness
- Overall Impression

Self-presentation Skills

Assessment Center Method :

Mock Interview

15 Minute Videotaped Exercise using Standard
Interview Questions Evaluated by
Business Faculty & Trained Students



- Communication Skills
- Presentation Style
- Employability

Leadership Skills

Leaderless Group Discussion

20 Minute Videotaped Discussion Evaluated
by Business Faculty & Trained Students

TOPICS INCLUDE : Violence on T.V., California's Water Supply, Education Costs



- Meaningful Participation
- Leadership Potential

Administrative Skills

Assessment Center Method :

In-basket Exercise

1 Hour Simulation of Managerial Work
in a Fictitious Business Environment Measuring
Writing Skills, Problem Solving Ability, and
Sensitivity to an Organization's Goals and Structure

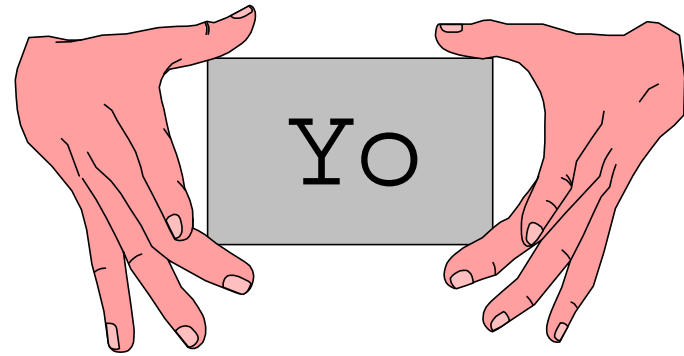
- Delegation
- Coordination
- Synthesizing Information
- Planning a Meeting
- Ethical Decision-Making
- Computer skills



Personal Data

Measurement Methods

Paper and pencil tests/inventories
University archives
Employment history



- Personality
- Social skills
- Business knowledge, credit hours & GPA
- Jobs, industries, DOT
- Demographics

Selected Results



- Reliability of measures
- ESL subject and rater effects
- Predicting leadership potential
- Predicting employability

Reliability of AC Measures



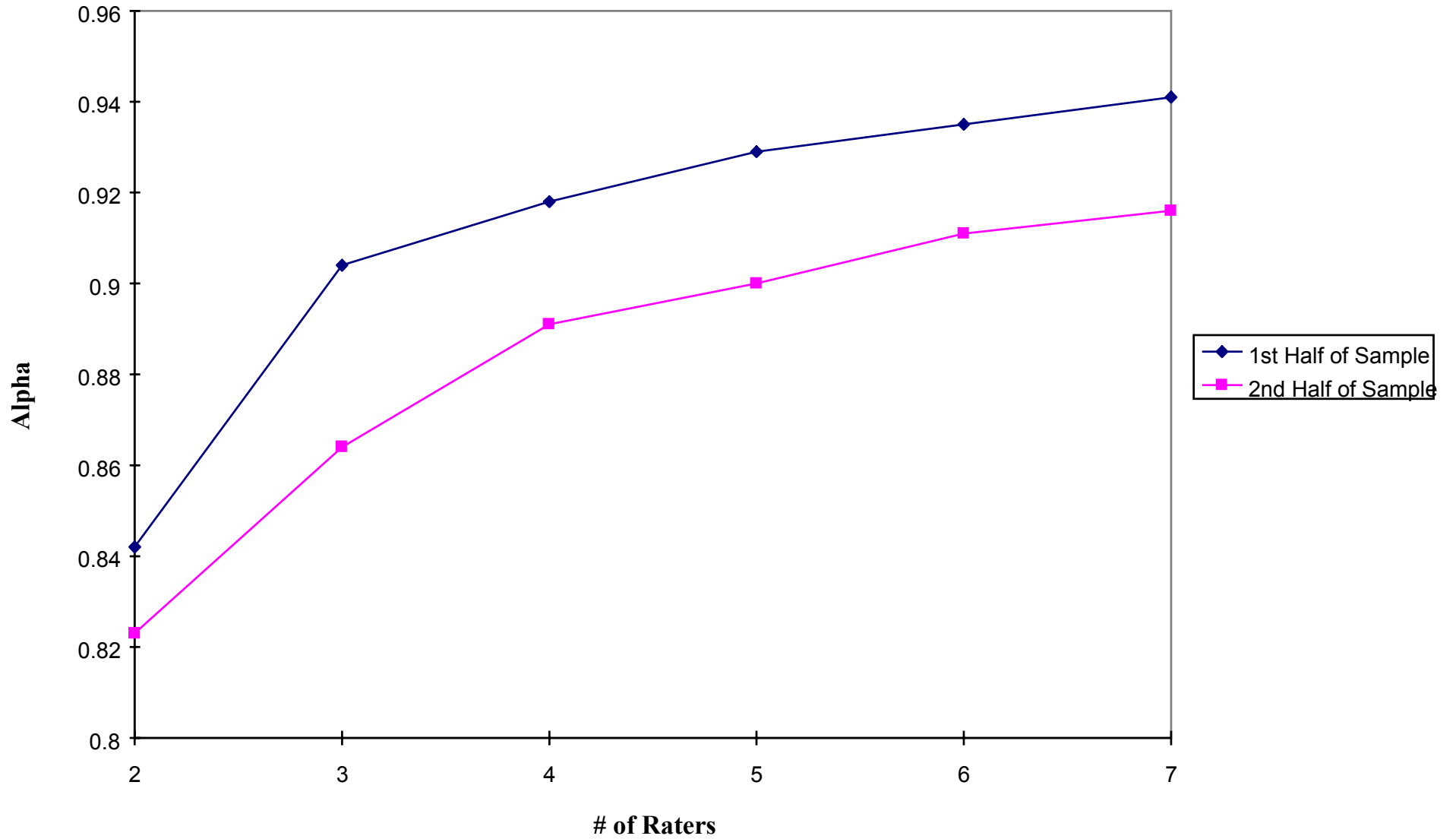
- Faculty vs student raters
- Improving alpha by combining ratings

Average Inter-rater Reliability & Alpha Estimates Faculty vs. Student Raters

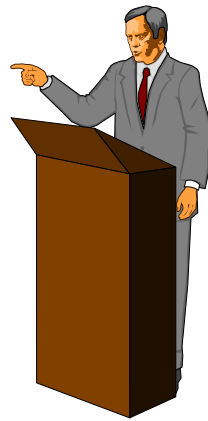
Video Exercises

<i>DIMENSION RATED</i>	Inter-rater Reliability (n = 466)		Alpha Estimates (n = 161)	
	<u>FACULTY</u>	<u>STUDENT</u>	<u>FACULTY</u>	<u>STUDENT</u>
INTERVIEW				
<i>Good Communication Skills</i>	.69	.62	.90	.83
<i>Good Presentation Style</i>	.64	.54	.87	.77
<i>Employability</i>	.68	.61	.89	.82
PRESENTATION				
<i>Persuasiveness</i>	.30	.09	.64	.26
<i>Organization of Ideas</i>	.27	.38	.60	.50
<i>Overall Impression</i>	.57	.54	.84	.54
GROUP DISCUSSION				
<i>Meaningful Participation</i>	.62	.59	.87	.73
<i>Managerial Potential</i>	.63	.65	.87	.77

Alpha Reliability as a Function of # of Raters
Communication Skills



English as a Second Language



- ESL & EFL students
- ESL & EFL faculty raters
- Oral presentation evaluation

Effects of English as a Second Language of Raters and Ratees on Interviews (n = 135)

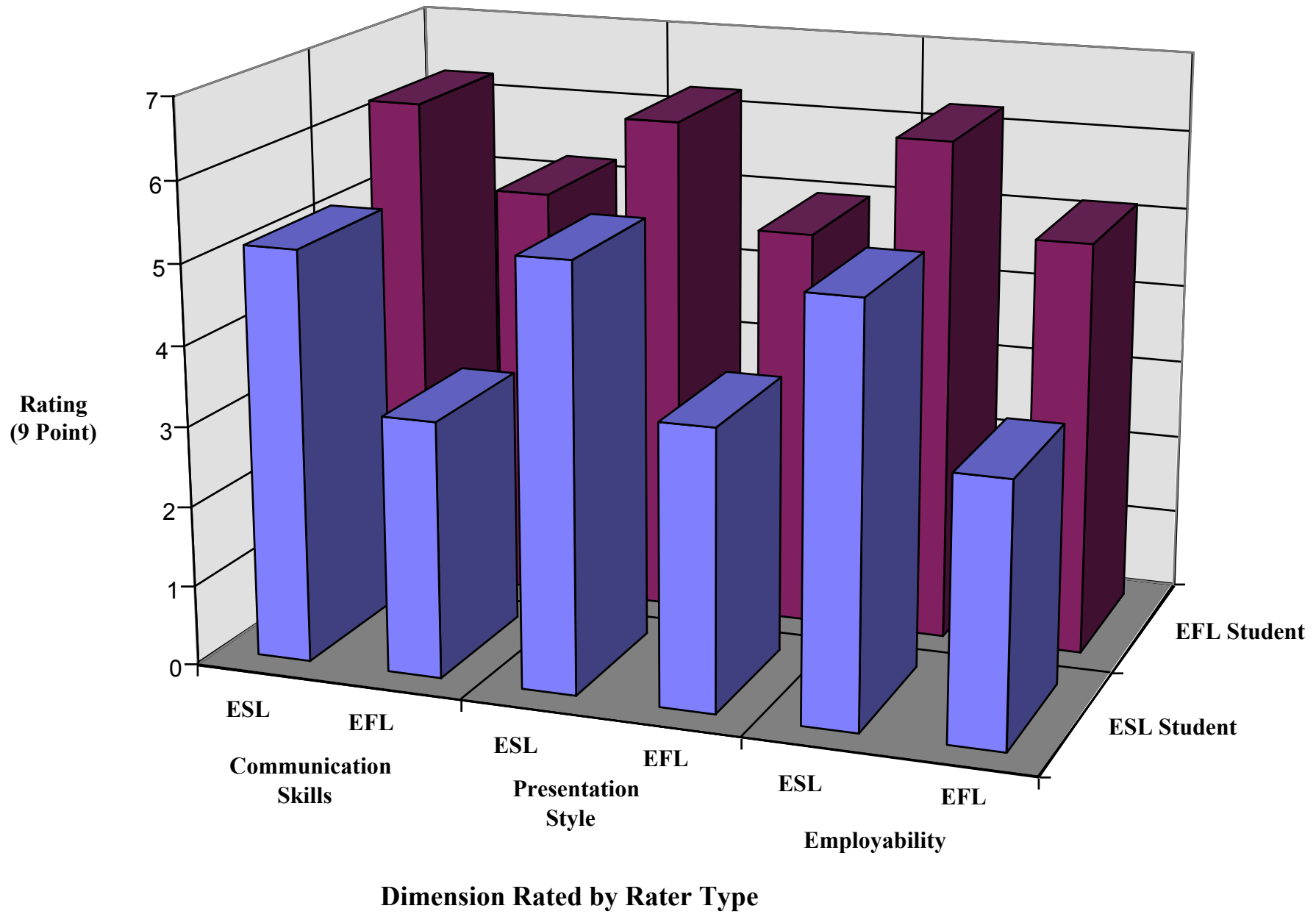


TABLE 1a : Univariate Within and Between Subject Analysis for Sample 1 (N = 68)

Source of Variance	Good Communication Skills (GCS)			Good Presentation Style (GPS)			Would Consider Hiring (WCH)		
	SS	F _(df)	η^2	SS	F _(df)	η^2	SS	F _(df)	η^2
EFL/ESL - Rater	126.86	118.69 (1)	.23***	148.24	183.81 (1)	.29***	144.46	140.98 (1)	.26***
EFL/ESL - Student	84.59	21.23 (1)	.15***	50.72	13.29 (1)	.10***	76.01	19.01 (1)	.13***
Rater by Student	2.06	1.93 (1)	-	1.04	1.29 (1)	-	3.29	3.21 (1)	.01
Error	343.64			305.04			341.56		
Total	557.15			505.04			565.32		

TABLE 1b : Univariate Within and Between Subject Analysis for Sample 2 (N = 67)

Source of Variance	Good Communication Skills (GCS)			Good Presentation Style (GPS)			Would Consider Hiring (WCH)		
	SS	F _(df)	η^2	SS	F _(df)	η^2	SS	F _(df)	η^2
EFL/ESL - Rater	29.57	29.68 (1)	.06***	25.32	25.13 (1)	.06***	27.25	24.22 (1)	.06***
EFL/ESL - Student	71.83	16.23 (1)	.15***	44.06	9.29 (1)	.10**	67.25	17.49 (1)	.16***
Rater by Student	12.49	12.54 (1)	.03***	4.43	4.39 (1)	.01*	7.46	6.63 (1)	.02*
Error	352.48			373.79			323.13		
Total	466.37			447.60			425.09		

*** p < .001

** p < .01

* p < .05

Predicting Leadership Potential



- Leadership potential was rated during LGD
- Personality predictors
- Communication & social skill predictors

Regression of Personality and Communication Skills on Leadership Potential (N=113)

Leadership Potential is the DV

Variable (IV's)	Beta
Communication Skill	.49***
n Achievement	-.23**
n Power	.30***
Tolerance for Ambiguity	.23**
Emotional Expressiveness	.09

R^2 Change = .44

Predicting Employability



- Rated during a mock hiring interview
- Personality & social skills
- Work history
- Academic performance
- Management skills rated in the AC

Predicting Student Employability

- Self Esteem
- Tolerance for Ambiguity
- Social Control
- Social Sensitivity

Psychological Measures

- Level of Responsibility in “Data”
- Level of Responsibility in “People”
- Level of Responsibility in “Things”

Work History Information

- GPA
- AACSB Business Exam
- Total CSUF Units Completed
- Participation in Career Activities

Scholastic Performance Measures

- Overall Quality of In-basket
- Overall Impression of Oral Presentation
- Managerial Potential in LDG

Assessment Center Performance

**Mission:
Student
Employability**

```
graph LR; PM[Psychological Measures] --- V; WHI[Work History Information] --- V; SPM[Scholastic Performance Measures] --- V; APC[Assessment Center Performance] --- V; V --> ME[Mission: Student Employability];
```

Predicting Student Employability

- Self Esteem
- Tolerance for Ambiguity
- *Social Control*
- Social Sensitivity

- Level of Responsibility in “Data”
- Level of Responsibility in “People”
- *Level of Responsibility in “Things”*

- GPA
- *AACSB Business Exam*
- Total CSUF Units Completed
- Participation in Career Activities

- Overall Quality of In-basket
- *Overall Impression of Oral Presentation*
- *Managerial Potential in LGD*

Psychological Measures

Work History Information

Scholastic Performance Measures

Assessment Center Performance

**Mission:
Student
Employability**

$p \leq .01$
 $p \leq .06$

Predicting Student Employability with
 Psychological, Work History, University Performance, and Management Skill Measures
 (n = 129)

VARIABLES

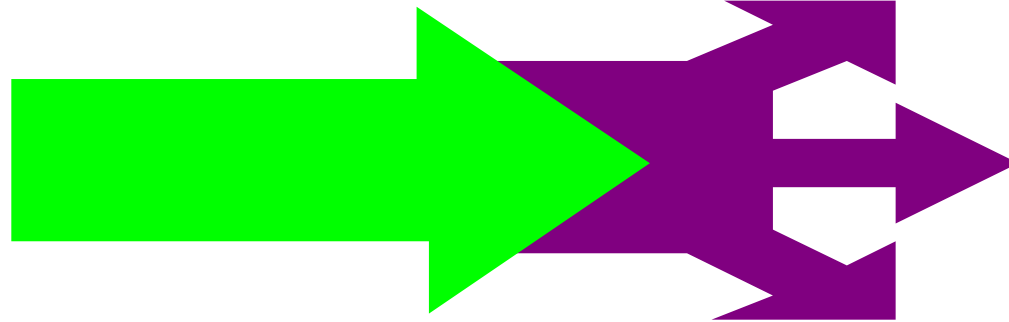
	BETAS			
	Block 1	Block 2	Block 3	Block 4
<i>Block 1 : Psychological Measures</i>				
Rosenberg's Self Esteem Scale	.07	.10	.14	.13
Budner's Tolerance for Ambiguity	.05	.06	.06	.03
Riggio's SSI - Social Control Subscale	.39***	.38***	.39***	.26**
Riggio's SSI - Social Sensitivity Subscale	0	0	.08	.14
Δ R² Block 1	.20***			
<i>Block 2 : Work History Information</i>				
Mean Level of Responsibility in "Data" (DOT Codes)		.08	.07	- .03
Mean Level of Responsibility in "People" (DOT)		0	.04	.04
Mean Level of Responsibility in "Things" (DOT)		.24**	.24**	.20**
Δ R² Block 2		.07*		
<i>Block 3 : University Performance Measures</i>				
GPA			- .06	- .12
AACSB Business Exam Score			.39***	.28***
Total CSUF Units Completed			.02	0
Sum of Career Activity Participation (e.g. # Times Talked to an Advisor, Revised Resume)			- .04	.06
Δ R² Block 3			.15***	
<i>Block 4 : Assessment Center Performance</i>				
Overall Quality : In-Basket Exercise				- .02
Overall Impression : Oral Presentation				.23**
Managerial Potential : Leaderless Group Discussion				.38***
Δ R² Block 4				.16***
Total R²				.58***

*** p < .001

** p < .01

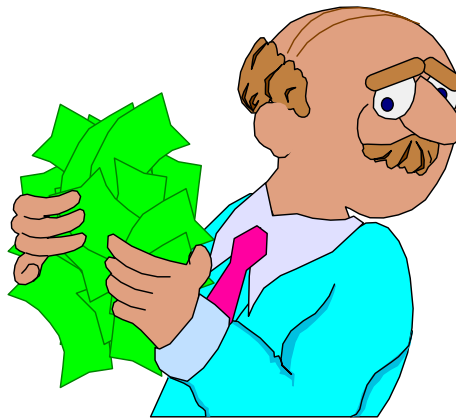
* p < .05

Potential AC Applications



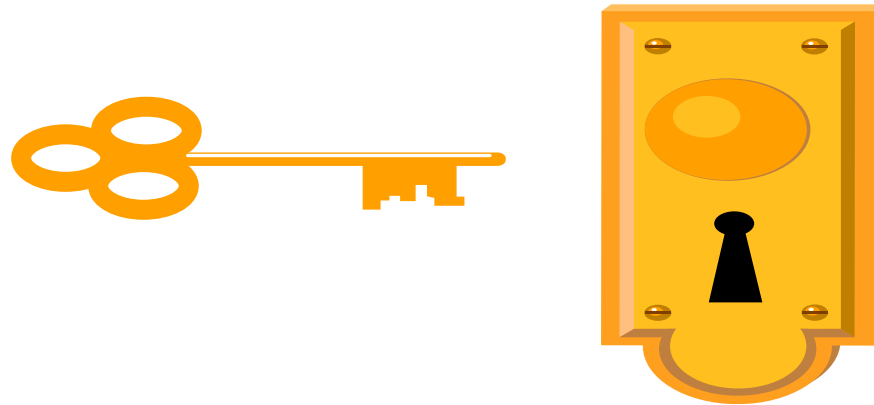
- Identify training needs
- A learning tool; raters & ratees
- Measure program/training effectiveness
- Student career development; RJP
- Faculty development
- Revenue generation

AC Cost Analysis



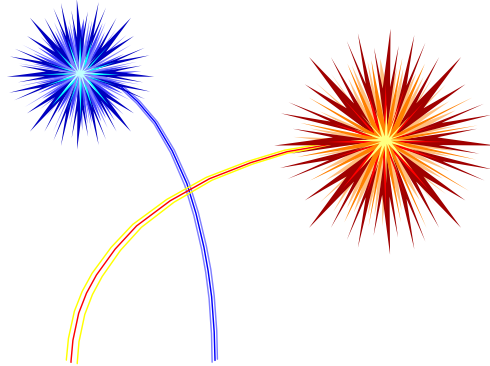
- Our costs including startup activities
- Cost estimates for a commercial AC
- Minimum cost estimates for university AC's

Keys to AC Cost Reduction



- Maximize use of student volunteers
- Cultivate corporate internships for AC team
- Solicit local business contributions
- Provide evaluation services for hire

Summary Conclusions



- AC methods can be applied in academic settings
- AC methods can be made cost effective
- AC methods can be made reliable
- Predictive utility of AC's in academic arenas needs more research