

# A Decade of Growing Your Own in South Carolina: Reviews of Research

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## Why and How of Grow Your Own (GYO)

- Severe shortages persist
- Employment to increase 17%
- Addressing the need: GYO

American Association for Employment in Education (2007); Higher Education Consortium in Special Education (n.d.); U.S. Bureau of Labor Statistics (2012); Butler (2008); Müller (2011, 2012)

## South Carolina's GYO Recognized



Council for Exceptional Children (Sutton et al., 2008, 2009, 2010, 2012); *Education Daily* (Njuguna, March 16, 2011); National Association of State Directors of Special Education (Müller, 2011, 2012)

## Research Targets

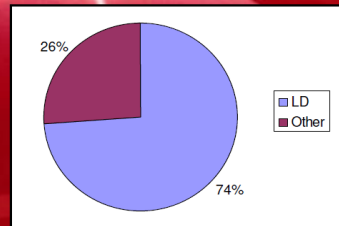
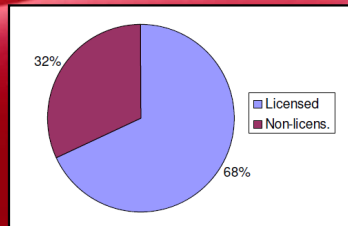
*How effective are GYO programs?*

- STUDY 1: Predictors of Success
- STUDY 2: Competency Differences
- STUDY 3: Praxis II® Barometer
- STUDY 4: Alternative v. Traditional
- STUDY 5: Capacity/High Poverty

## STUDY 1: Predictors of Success

Do personal/professional attributes predict whether completers in an alternative (add-on) special education teacher preparation program successfully obtain state licensure?

n=196 Program Completers



## Variables

DEPENDENT: Licensure in SpEd

INDEPENDENT: 15 personal/profess. attributes

- Gender
- Ethnicity/race
- Age
- Tchg. experience
- Other experience
- Combined exper.
- Bachelor's degree
- Bachelor's in educ.
- Master's degree
- Master's in education
- Add-on courses completed
- Holds SpEd license
- Holds GenEd license
- Both Sp/GenEd license
- Employed high risk district

## Discriminant Analysis

EIGENVALUE ( $\lambda$ ):  $\lambda = .782$

CANONICAL CORRELATION ETA ( $\eta$ ):  $\eta = .662$

WILKS' LAMBDA ( $\Lambda$ ):  $\Lambda = .561$

SIGNIFICANCE ( $p$ ):  $p \leq .000$

PREDICTOR VARIABLES (6 of 15): 1. SpEd license; 2. Teaching experience; 3. Race; 4. Total experience; 5. GenEd license; 6. Employed in high risk district.

OVERALL HIT RATIO: 166/196 cases (84.7%)

## STUDY 2: Competency Differences

Do teachers prepared through alternative (add-on) and traditional (degree) programs differ significantly in competency as assessed through national exam and self-report measures?

n=153 Program Completers

n=51  
Add-on  
Certification

n=51  
Bachelor's  
Degree

n=51  
Master's  
Degree

# Analysis of Variance

Group	n	Mean	SD
Add-on	51	174.67	10.78
Bachelor's	51	177.37	11.76
Master's	51	181.14	10.68

Praxis II®  
 $F(2,150)=4.38, p=.01^*$   
 Master's > Add-on\*

SPeNSE-Behav. Mgt  
 $F(2,37)=0.84, p=.43$

Group	n	Mean	SD
Add-on	14	43.79	4.85
Bachelor's	12	43.67	5.64
Master's	14	46.07	5.73

# Analysis of Variance

Group	n	Mean	SD
Add-on	14	17.50	1.87
Bachelor's	12	17.33	1.55
Master's	14	17.50	1.65

SPeNSE-IEPs  
 $F(2,37)=0.42, p=.95$

SPeNSE-Lang/Divers.  
 $F(2,37)=1.47, p=.24$

Group	n	Mean	SD
Add-on	14	15.93	4.61
Bachelor's	12	13.08	6.12
Master's	14	12.86	4.97

# Analysis of Variance

Group	n	Mean	SD
Add-on	14	80.29	7.81
Bachelor's	12	75.42	8.17
Master's	14	77.14	9.23

SPeNSE-Practices  
 $F(2,37)=1.12, p=.33$

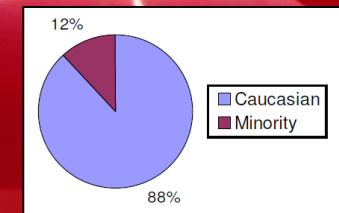
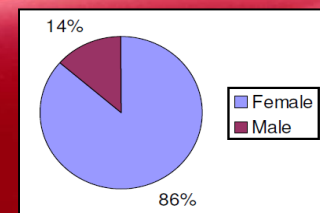
SPeNSE-Transitioning  
 $F(2,37)=0.33, p=.71$

Group	n	Mean	SD
Add-on	14	27.90	6.28
Bachelor's	12	29.30	3.57
Master's	14	29.00	3.31

# STUDY 3: Praxis II® Barometer

Do course GPAs of alternatively prepared teachers completing add-on licensure significantly relate to their Praxis II® exam total and/or domain scores?

n=43 LD Teachers





# Praxis II® & Course GPAs

Data	Mean	SD
Praxis II® Total Score	174.16	10.51
Praxis II® Characteristics Dom I Score	12.86	1.90
Praxis II® Services Dom II Score	10.07	1.59
Praxis II® Problem-solving Dom III Score	11.63	2.48
Characteristics of LD GPA (I)*	3.88	0.29
Methods for LD GPA (II)*	3.74	0.47
Behavior Management GPA (II)*	3.90	0.29
Assessment in Spec Educ GPA (II)	3.81	0.37
Aggregate I GPA *^	3.78	0.40
Aggregate II GPA *°	3.83	0.26
Total GPA*	3.82	0.26

# Correlation Matrix

		Char GPA n=25	Meth GPA n=30	BM GPA n=27	As GPA n=26	Agg I GPA n=26	Agg II GPA n=40	Total GPA n=43
Praxis II® Total	r	0.035	0.071	0.261	0.268	0.148	0.124	0.179
	p	0.434	0.354	0.094	0.092	0.171	0.269	0.134
Praxis II® Dom I	r	0.169	0.341	0.046	-0.029	0.199	0.439	0.151
	p	0.209	0.032*	0.408	0.445	0.100	0.012*	0.176
Praxis II® Dom II	r	0.118	-0.104	0.276	0.405	0.142	0.050	0.157
	p	0.287	0.292	0.081	0.019*	0.181	0.401	0.166
Praxis II® Dom III	r	-0.161	-0.063	0.216	0.053	0.011	-0.070	0.062
	p	0.222	0.370	0.139	0.398	0.471	0.366	0.351

= Moderate correlation    
  = Weak/low correlation    
 \* Signif,  $p \leq .05$

## STUDY 4: Alternative v. Traditional

Do the rates of disciplinary infractions of students with EBD incurred by teachers prepared through alternative licensure programs vary significantly from teachers prepared through traditional degree programs?

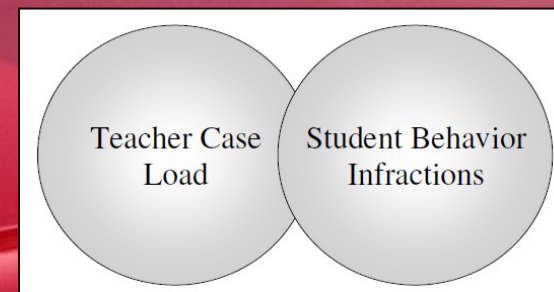
n=52 EBD Teachers

n=26  
Alternative  
Certification

n=26  
Traditional\*  
Certification

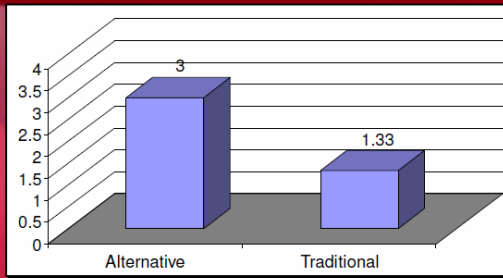
\*Obtained through a bachelor's degree in special education.

## Data for the Study



Data supplied by the South Carolina Department of Education.

ASBI = Average Student Behavior Infraction (number of student behavior infractions incurred in a teacher's classroom over a given period of time divided by the teacher's student case load).



Group Means

### Behavior Infractions

	Alternative			Traditional		
	Rank	Raw	%*	Rank	Raw	%^
Cutting Class	3	85	6.8	4	23	4.3
Disrespect	5	74	5.9	2	36	6.8
Profanity	4	82	6.4	3	33	6.2
Refusal to Obey	1	122	9.7	5	22	4.1
Tardy to Class	2	121	9.6	1	57	10.7
<b>TOTALS:</b>		<b>484</b>	<b>38.4</b>		<b>171</b>	<b>32.2</b>

\* Calculated from a total of 1,259 behavior infractions.  
 ^ Calculated from a total of 531 behavior infractions.

## Analysis of Variance

	SS	df	MS	F	p
Between Groups:	36.25	1	36.25	5.99	.018*
Within Groups:	302.24	50	6.04		
Total:	338.49	51			

\* Significant result,  $p \leq .05$

Alternative > Traditional

## STUDY 5: Capacity/High Poverty

Do the rates of teachers in high-poverty school districts supplied from GYO programs vary significantly from the rates in mid- and low-poverty school districts?

85 SC School Districts  
 n=599 Program Completers

28 Low-Poverty  
 n=287

29 Mid-Poverty  
 n=213

28 High-Poverty  
 n=99

## Analysis of Variance

Group	Teachers		TCI		SD
	n	Range	Range	Mean	
Low-poverty	287	0-73	0-2.35%	1.03%	0.62
Mid-poverty	213	0-36	0-5.63%	1.85%	1.42
High-poverty	99	0-21	0-6.86%	2.11%	1.78

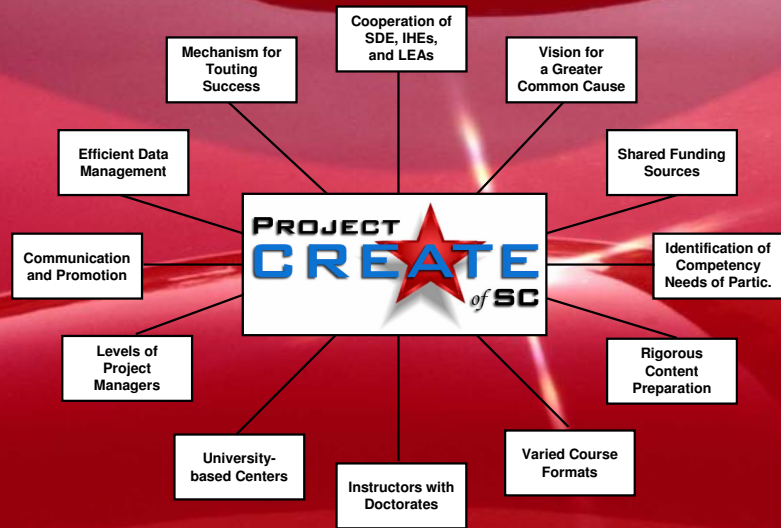
$F(2,82)=5.21, p=.007^*$

High-poverty > Low-poverty

Mid-poverty > Low-poverty

TCI = Teacher Capacity Index (number of program completers divided by the total number of teachers employed in the district).

# Success Factors of CREATE



Detailed handouts of studies  
available at:

[www.sccreate.org](http://www.sccreate.org)

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