

Valid and Reliable (V&R) Instruments for Educator Preparation Programs
(VARI-EPP)

Student Teaching Form (VE-ST) Project:
Using Data to Meet the Needs of Diverse Learners

OCTEO

Thursday, March 31, 1:30 – 2:30 PM

VARI-EPP Coordination Team: Erica Brownstein, Carolyn Kaplan, Xiangquan Yao, and Kristall Day

Does VE-ST have V&R
in a variety of contexts?

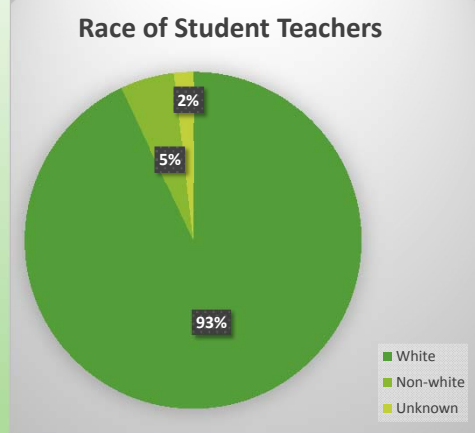
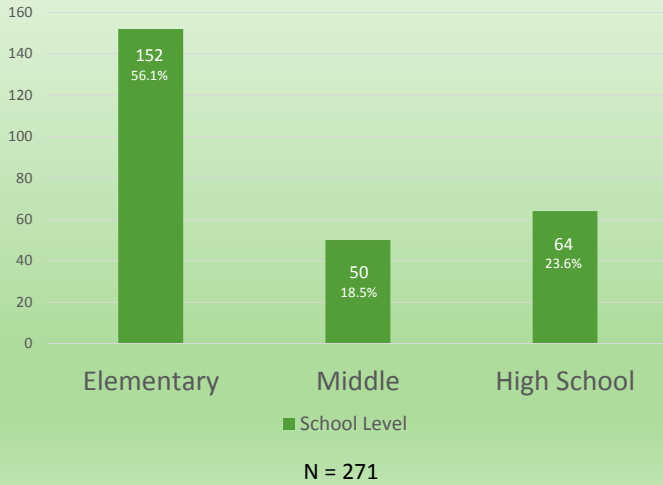
Institution Type	# of Institutions	# of Student Teachers
Urban - Public	3	103
Suburban - Public	1	32
Rural - Public	1	101
Urban - Private	3	4
Suburban - Private	1	27
Rural - Private	1	4

Data from Fall 2015



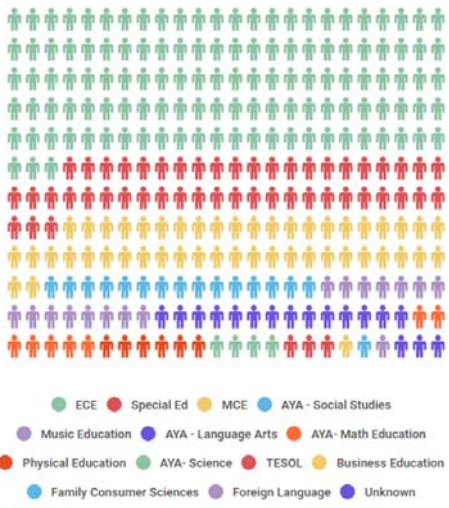
Demographic description of the fall 2015 data

P-12 School Level



Gender	Percentage
Female	73.8%
Male	24.4%
Unknown	1.8%

Student Teacher Licensure Area (n = 271)



Does VE-ST have V&R with different licensure areas?

License Area	# of Interns	Percentage
Early Childhood Education	116	42.8%
Special Education	45	16.6%
Middle Childhood Education	44	16.2%
AYA/Secondary Social Studies	14	5.2%
Music Education	14	5.2%
AYA/Secondary English Language Art	13	4.8%
AYA/Secondary Math Education	6	2.2%
Physical Education	6	2.2%
AYA/Secondary Science Education	4	1.5%
TESOL	3	1.1%
Business Education	1	.4%
Family Consumer Sciences	1	.4%
Foreign Language	1	.4%
Unknown	3	1.1%

Data from Fall 2015

Pedagogy	Alignment	Dispositions	Alignment
Planning for Instruction and Assessment		Professional Commitment and Behaviors	
A. Focus for Learning: Standards and Objectives/Targets	OSTP 4.1 InTASC 7a	A. Participates in Research and/or Evidence-based Professional Development	OSTP 7.2 CAEP 1.2
B. Materials and Resources	OSTP 4.7 InTASC 7b	B. Demonstrates Effective Communication with Parents or Legal Guardians	OSTP 3.4 InTASC 10d
C. Assessment of P-12 Learning	OSTP 2.3 InTASC 6b	C. Demonstrates Punctuality	OSTP 7.1 InTASC 9o
D. Differentiated Methods	OSTP 4.5 InTASC 2c	D. Meets Deadlines and Obligations	OSTP 7.1 InTASC 9o
Instructional Delivery		E. Preparation	OSTP 7.1 InTASC 3d
E. Learning Target and Directions	OSTP 4.3 InTASC 7c	Professional Relationships	
F. Critical Thinking	OSTP 4.6 InTASC 5d	F. Collaboration	OSTP 6.3 InTASC 10b
G. Checking for Understanding & Adjusting Instruction thru Formative Assessment	OSTP 3.2 InTASC 6b	G. Advocate to Meet the Needs of Learners or for the Teaching Profession	OSTP 3.4 InTASC 10j
H. Digital Tools and Resources	OSTP 4.7 CAEP 1.5	Critical Thinking and Reflective Practice	
I. Safe and Respectful Learning Environment	OSTP 5.1, 5.2, 5.5 InTASC 3d	H. Responds Positively to Constructive Criticism	OSTP 7.2 InTASC 9n
Assessment			
J. Data-Driven Instruction	OSTP 3.3 InTASC 6c		
K. Feedback to Learners	OSTP 3.4 InTASC 6d		
L. Assessment Techniques	OSTP: 3.1 InTASC 7d		
Analysis of Teaching			
M. Connections to Research and Theory	OSTP: 4.4 CAEP 1.2		

Validity & reliability analyses for fall 2015

✓ Validity

- ✓ Construct (statistical analyses)
- ✓ Content (survey of experts)
- ✓ Concurrent (statistical analyses, comparison to edTPA & OAE)

✓ Reliability

- ✓ Test-retest (statistical analyses, midterm compared to final)
- ✓ Internal consistency (statistical analyses)
- Inter-rater (comparison for agreements between two independent raters)

Fall 2015 data analysis: Some surprising results

- Construct Validity Results
- Mean Scores: Student Teachers' Performance
- Test-retest Reliability Results
- Concurrent Validity (OAE and edTPA) Results
- Future



Construct validity

- Confirmatory factor analysis (CFA) *confirmed our theoretical assumption of a two-factor model* (i.e. pedagogy and disposition)
 - All 13 items designed to measure pedagogy significantly load onto pedagogy
 - All 8 items designed to measure disposition significantly load on to disposition
 - Loading of almost all items is above 0.6
- Pedagogy and Disposition *are highly correlated*
 - ($\rho = 0.895$ and $p < 0.001$)



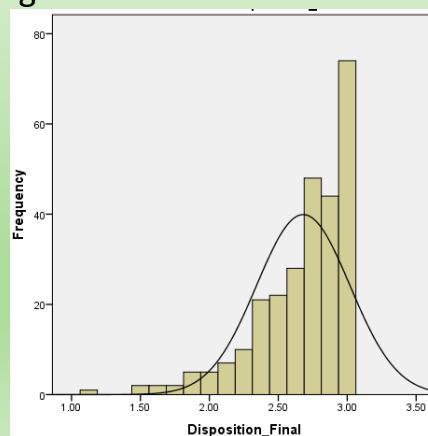
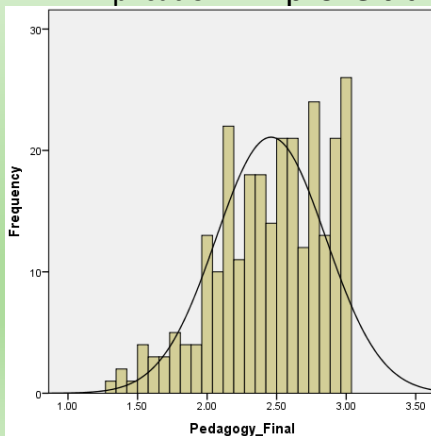
Construct validity

- The two-factor model is *stable* across time
- The mean scores of pedagogy and disposition *can be compared across time*



Mean scores: Student teachers' performance

- Finding: Scores on many rows have a negative skew
 - That is, more student teachers have a score *above the mean*
- Implication: Improve training



Test-retest reliability of the VE-ST Form

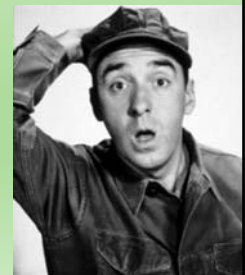
Under the CFA model:

- Pedagogy at mid-term *was significantly correlated* with pedagogy at final term
 - ($r_s=.719$, $p < .001$)
- Disposition at mid-term *was significantly correlated* with disposition at final term
 - ($r_s=0.886$, $p < .001$)



Concurrent validity: OAE and VE-ST Form

- *Expected correlation* between
 - OAE Assessment of Professional Knowledge and VE-ST Form
- **Surprise!** *No correlation found* between
 - OAE and VE-ST



Concurrent validity: edTPA and VE-ST Form

- The correlation between
 - edTPA and VE-ST pedagogy rows *is significant*
 - ($r_s = 0.121$ and $p = 0.041$)
- **SURPRISE?** The correlation between
 - VE-ST disposition rows and edTPA is *not significant*
 - ($r_s = 0.034$, $p = 0.580$)



Take away messages

- Spring data (26 IHEs and 1350 candidates) provides:
 - More power in the analysis (more confidence in our results)
 - Re-affirming what we've learned thus far
 - Opportunity to explore further:
 - Some items are significantly cross-loading onto both pedagogy and disposition
 - Some items have loadings below 0.6
 - More program representation
 - Agriscience Education, Art Education
 - IRR study data
 - 42 candidates around the state



Take away messages (cont.)

- Spring data (26 IHEs and 1350 candidates) provides opportunities to:
 - Examine if the instrument is non-biased across gender, race, type of placement, etc.
 - *If we receive complete demographic data*
 - Apply “lessons learned” from the fall
 - Fidelity of instrument use is *critical* for the instrument to be valid and reliable
 - Ensure supervisors are trained
 - Encourage supervisors and cooperating teachers to use the “Look Fors”



Future

- Training
 - Focus group on training feedback
 - Timing of training
 - What works? Group? Individual?
 - Annual recalibration?
 - Volunteers: Input folks – idea people
 - Volunteers: Worker bees – those that have experience and wish to help develop the online training
- Cross our fingers
 - If V&R – then form is freely available for Fall 2016
- Timeline for data analysis, availability, and training
- Mathematics SPA assessment
 - Recruiting interested IHEs



Would you like to join our party?

- Training
 - Focus Group (from our present 26 partner institutions)
 - Available to help design training in summer
 - 3 face-to-face meetings
 - 3 two-hour work sessions online
- Math SPA assessment (all are welcome)
 - Agree to implement assessment in 2016-2017 with secondary mathematics licensure candidates
 - Need MANY IHEs, because overall numbers are small
 - Will reach out to IHEs outside of Ohio



Reminders to our partners

- Data due: **May 20th**
 - *Remember to use the* instructional video about the data collection sheet
 - *Tips:*
 - *No decimal scores* permitted (spreadsheet will prohibit)
 - *Include as much demographic information as possible* (helps future analysis!)
 - *OAE data* includes the four categories and the total score
 - *Submit to* Buckeye Box
- IRR participants:
 - Ensure they viewed *training video*
 - IRR data collection spreadsheet will be provided
 - Submit both IRR collection sheet and larger study spreadsheet
 - **Remember!** - IRR data should *not* reflect consensus scores



Funding that made this work possible

- Race to the Top
- University Center for the Advancement of Teaching (UCAT)
 - The Ohio State University
- American Association of Colleges of Teacher Education
 - State Chapter Grant



Questions?

Thank you for your time!

- If you have any questions AT ANY TIME, feel free to contact:

Name	Email	Phone	Topic
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Kristall Day	Day.368@osu.edu	(614) 292-5044	IRB, IRR Process, Data Collection, Timeline
Carolyn Kaplan	Kaplan.169@osu.edu	(614) 292-2581	Training, Timeline, IRR Participants
Xiangquan Yao	Yao.298@osu.edu	(614) 292-2581	Data Collection