

# **Analysis of the ESL Multiple Measures Survey**

Presented by:

Loris Fagioli · Vinh Nguyen · Jeff Wilson

This presentation will use audience interaction
Poll.ev/ivcresearch327

Text ivcresearch327 to 22333

Presentation available at http://bit.ly/esl-mm-18

### We have totally figured out this AB705 ESL placement thing

Agree

Disagree

# What is your current AB705 compliant plan to place ESL students?

Self-Placement only

Self-Placement + MM Survey

Continue current assessment until told otherwise

Other

No Plan



Offered in multiple languages

Did you attend a high school in the United Yes Did your high school experience include any English as a Second Language (ESL) or English Language Yes Development (ELD) coursework? I sometimes have trouble expressing Yes No myself in English. No 3 out of 4 randomized ESL collocation questions correct (see separate Yes (#1=No) No sheet) Yes (#1=Yes) ESL Placement English Placement Test-out options Test-out options

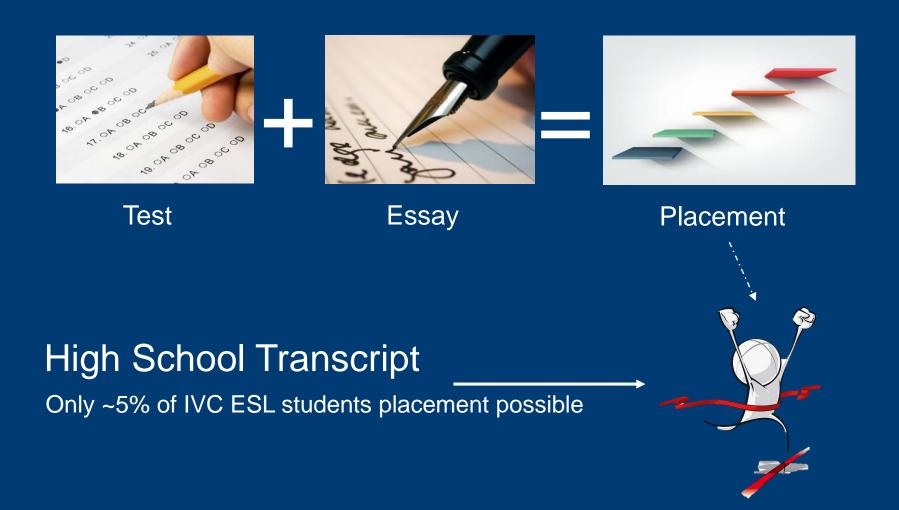


### **ESL Learners**

Students	Definitions
High School Graduates	<ul> <li>Many immigrate during high school</li> <li>May or may not have been born in the U.S.</li> <li>May or may not have studied English before U.S. arrival</li> <li>Often orally proficient – "ear learners"</li> <li>May have various HS years of experience</li> </ul>
International Students	<ul> <li>Born and raised outside the U.S.</li> <li>Studied English in EFL settings</li> <li>Come to U.S. on a foreign student visa for studying purposes</li> <li>Some return to their country once they have completed their studies</li> <li>Often grammar learners/low oral skills</li> </ul>
Adult Learners	<ul> <li>Includes recent and long-time residents or non-residents</li> <li>Some have advanced degrees, whereas others are illiterate in their native language</li> <li>Usually have plans to stay in the U.S.</li> <li>Various educational goals</li> </ul>



# IVC's Current ESL System





# AB 705 & International Students

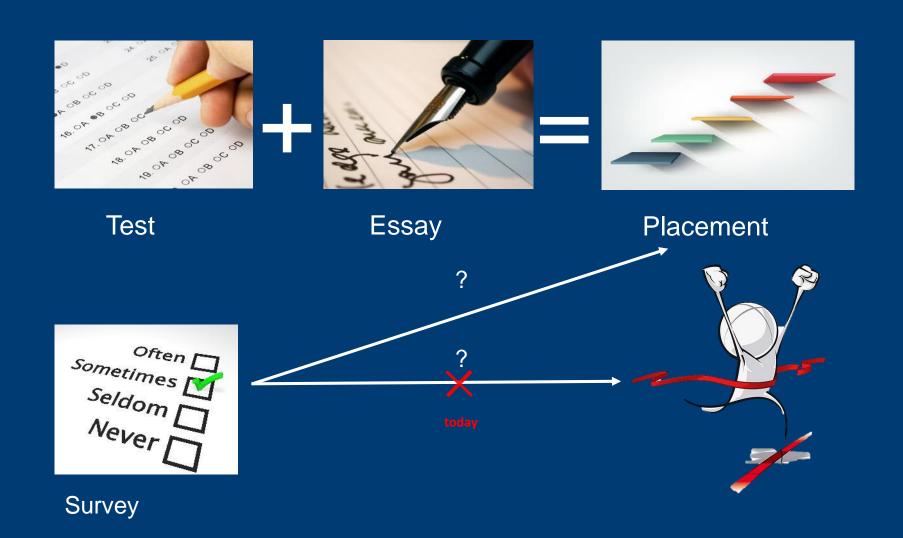








## MMAP Replication Attempt for ESL





## Which Approach is Best?

#### Limitations

#### **Outcome**



Very Large sample size needed





System Replication





Student self-bias

Many have limited information
on US educational system



## **ESL Survey Development**

#### Survey Incorporates:

- Published Literature
- Items currently in use at other colleges
- ESL faculty input

#### IVC Survey Administration:

- All ESL sections surveyed each term from Spring 2017 through Spring 2018
- Paper/pencil forms handed out by faculty
- Completion time: 5–25 minutes (more time in lower ESL sections)
- Translation sheets available in several languages for lower ESL levels

Fall 2018 transitioned to an online survey at matriculation



# Invited College Participation

#### Several Colleges showed interest:

- Cabrillo
- Cypress
- Mission
- Orange Coast

Several more plan to pilot the survey this fall



## **ESL Survey**

#### Types of questions asked:

- Years of ESL instruction
- Dreaming in English
- Mobile phone language settings
- Use of media in English (watching TV, reading, Internet)
- Work in an English environment

- Self-rated proficiency
- Number of languages spoken
- Use of translation sheet

#### NEW

- Pseudo GPA question
- Non-cognitive questions

8.	Before coming to the U.S.	, how did yo	ur teachers usually	y rate your school work?
----	---------------------------	--------------	---------------------	--------------------------

Not sufficient			Sufficient			Satisfactor	у		Good			Very Good
0	0	0	0	0	0	0	0	0	0	0	0	0

#### 9. How often do you do the following:

	Never 0%	Not very often 25%	Sometimes 50%	Often 75%	All the time 100%
I can motivate myself to do schoolwork	0	0	0	0	0
I tend to do just enough work to get by	0	0	0	0	О
I am very well organized	0	0	0	0	0
I am diligent	0	0	0	0	0
I know how to schedule my time to accomplish my tasks	0	0	0	0	0



## **Self-Placement Question**

#### Please rate your English proficiency level (only select one):

Proficient	Ability to speak and write English with ease and fluency similar to your native or mother tongue
Advanced	Ability to speak and write in English about a range of topics with a wide range of vocabulary in social and academic settings
Low Advanced	Ability to speak and write in English about a range of topics with limited vocabulary in social and academic settings
High Intermediate	Ability to speak and write English about a limited range of topics with limited vocabulary in social and travel settings
Low Intermediate	Ability to speak and write basic English to communicate in practical everyday situations
High Beginner	Ability to speak and understand English to meet basic needs
Low Beginner	Ability to speak and understand basic greetings and simple words in English



# Other Self-Placement Approaches

- Course Descriptions
- Writing Samples (student generated examples)
- Reading Samples (reading material used in class)
- Language Proficiency Descriptors
- Counseling
- Other?



### **Usable Data**

College	Total N	First Course N	First Course %
College # 1	31	15	48%
College # 2	256	83	32%
Irvine Valley	3,306	1,107	33%
College # 3	395	108	27%
College # 4	111	25	23%
Total N	4,099	1,338	33%



# Predicting Success is Not Feasible

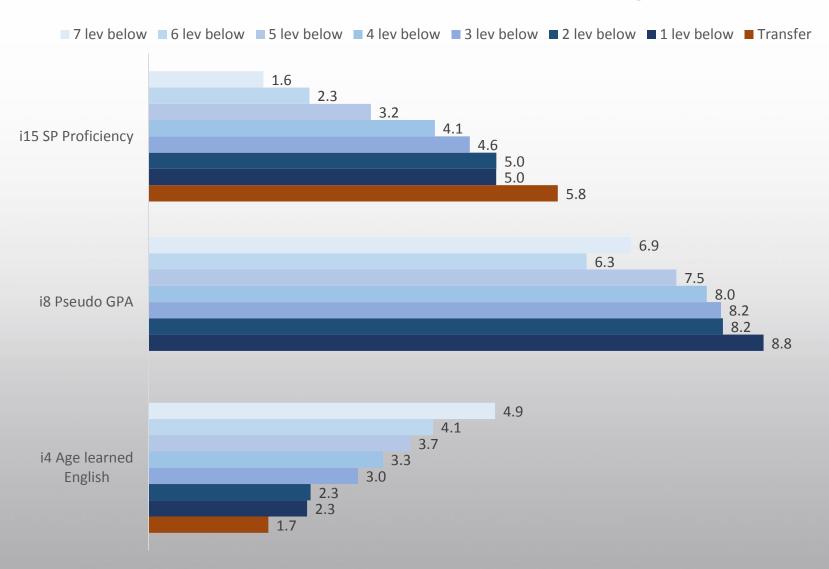
	Failed First Course	Passed First Course	Total N
1 level below	3	33	36
2 levels below	4	57	61
3 levels below	20	75	95
4 levels below	16	58	74
5 levels below	7	51	58
6 levels below	5	44	49
7 levels below	6	27	33
Total N	61	345	406

Note: Complete data for first course only



# **Predicting Course Level**

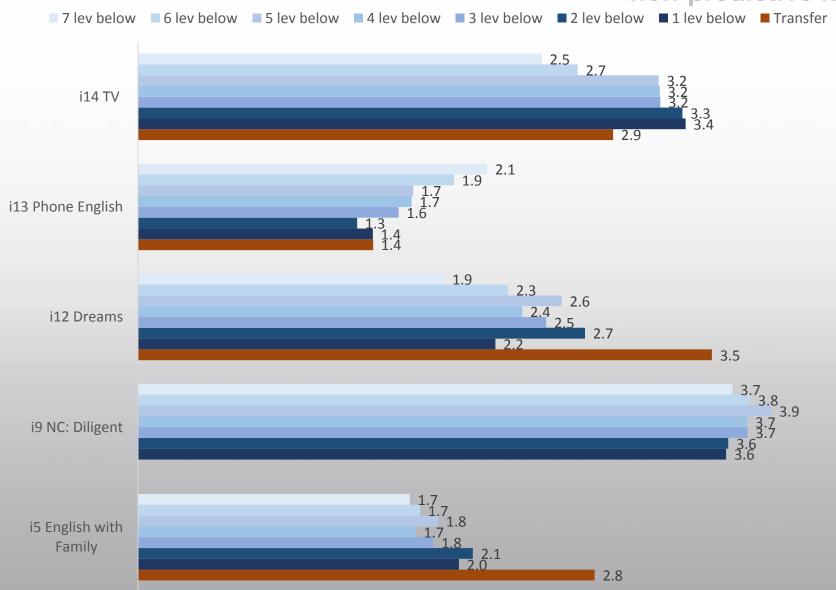
predictive items





## **Predicting Course Level**

non-predictive items





## Methodology

- Analytical Method
  - Decision Trees
- Outcome: Placement Test Score
  - 1) Predict placement test score
  - 2) Use predicted score to place
- Inputs
  - All Survey Items
- Training Data
  - 70% of IVC First Course File
- Validation
  - 30% of IVC First Course File (hold-out data)
  - IVC New data (Fall 2018)
  - Other college data



# Performance (Training+Test Data)

	Predicted Placement	SP Proficiency
Actual Placement	.63	.63 (Biased)

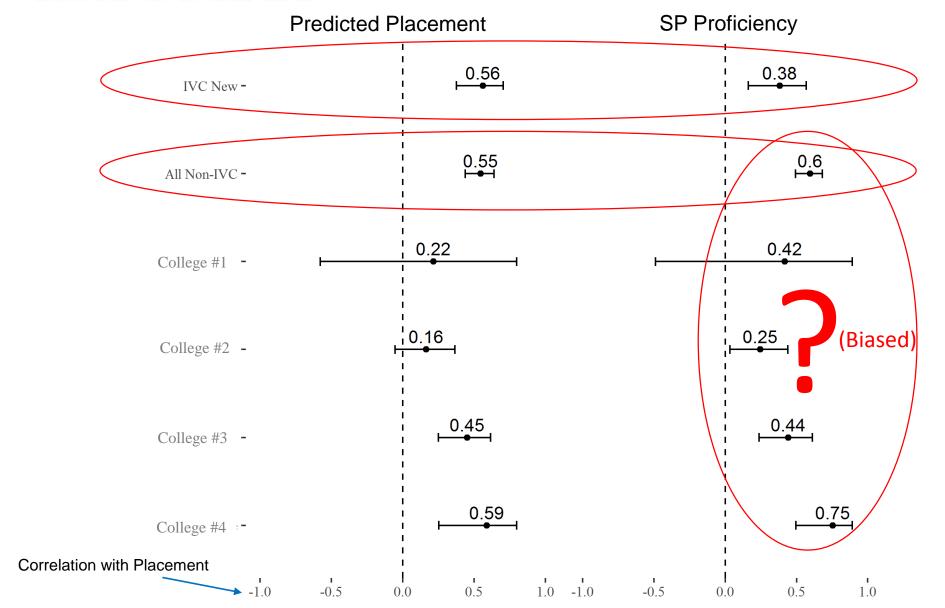
Notes: Overall Correlation Coefficients (IVC Spring 2017, Fall 2017, Spring 2018 data)  $SP = Self-placement\ proficiency\ level\ (Survey\ Item\ #15,\ v3.4)$ 

Predicted Placement = Decision tree based on all survey items with test score as outcome (continuous). Next, use predicted test score for placement level.

Both placement rules seem to correlate well with actual placement here. How do they perform with new students?

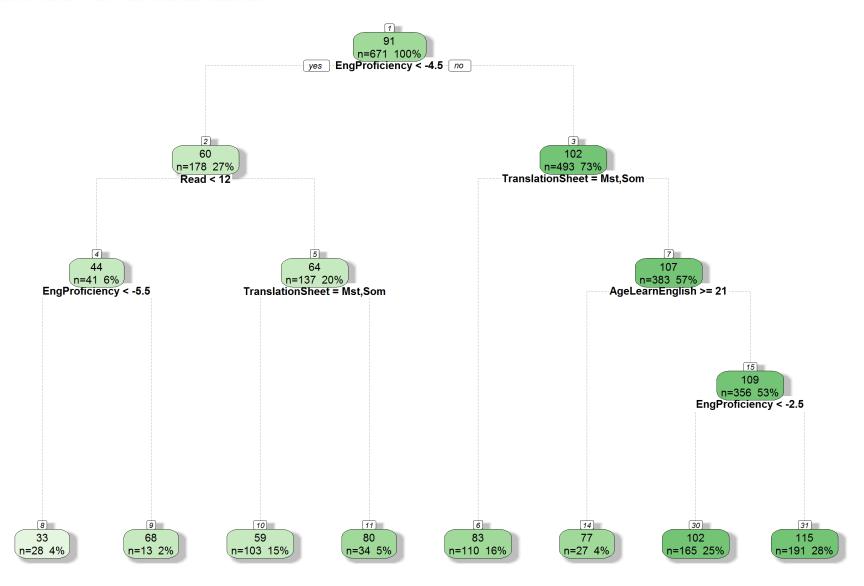


### Validation on new data





### **Predicted Placement**





### **Used Questions**

Out of 15 questions the decision tree utilized the following four:

- Self-Placement
- Age started learning English
- Used a translation sheet
- Frequency of reading a book in English



### **Predicted Placement**

		S	elf-Rat	ed Pro	ficienc	<b>C</b> Y			Books glish		earned lish		lation eet
Level	-6	-5	-4	-3	-2	-1	0	Never	Yes	0-21	21+	No	Yes
1 Level below					<b>√</b>	<b>√</b>	✓			✓		✓	
2 Levels below			<b>√</b>	<b>√</b>						✓		<b>√</b>	
3 Levels below			<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>						<b>√</b>
3 Levels below	✓	<b>√</b>							<b>√</b>			✓	
4 Levels below			<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓				<b>√</b>	<b>√</b>	
4 Levels below		<b>√</b>						<b>√</b>					
5 Levels below	<b>√</b>	<b>√</b>							<b>√</b>				<b>√</b>
6 Levels below	<b>√</b>							✓					

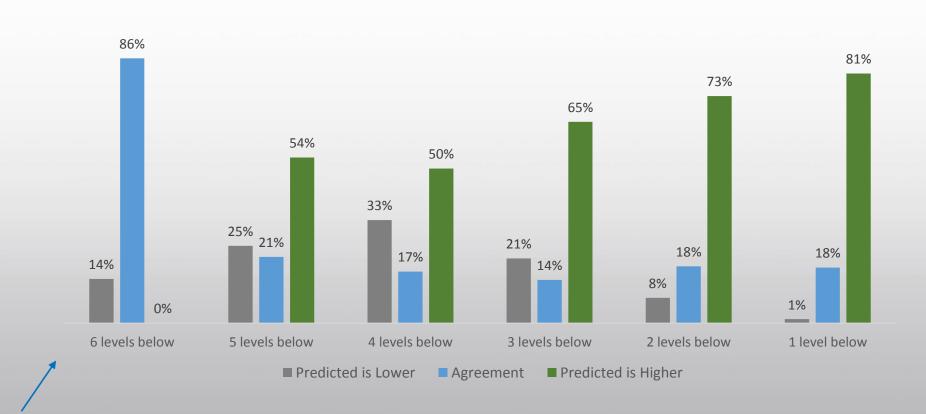


### **Predicted Placement**

Level	Decision Rule
1 Level below	Self-Rated Proficiency = Low Advanced, Advanced, or Proficient Age Learned English < 21 Translation Sheet = No
2 Levels below	Self-Rated Proficiency = High Or Low Intermediate  Age Learned English < 21  Translation Sheet = No
3 Levels below	Self-Rated Proficiency = Low Intermediate or Higher Translation Sheet = Most or Some OR Self-Rated Proficiency = Low or High Beginner Read Books in English ≠ Never Translation Sheet = No
4 Levels below	Self-Rated Proficiency = Low Intermediate or Higher Translation Sheet = No Age Learned English >= 21 OR Self-Rated Proficiency = High Beginner Read Books in English = Never
5 Levels below	Self-Rated Proficiency = Low or High Beginner Read Books in English ≠ Never Translation Sheet = Some or Most
6 Levels below	Self-Rated Proficiency = Low Beginner Read Books in English = Never



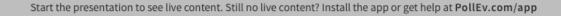
### Validation on new data



**Predicted Placement** 

Note: High Placement does not imply successful completion of that higher placement

# Please enter your CollegeName/Department if you would like to participate





## **Next Steps Statewide**

- Continue to collect data
  - We can create models predicting success only if all colleges collect similar/same data across multiple terms If you use IVC's free survey, please submit your data
- Self-Placement analysis
  - Colleges with Self-Placement policies sharing evidence
  - Colleges sharing SP data with IVC/MMAP for further analysis
- Additional Guidance and Policy by CCCCO



## Summary



Larger sample size needed





Predicting Flacement





### Contact

Loris Fagioli | Ifagioli@ivc.edu

Vinh Nguyen vnguyen216@ivc.edu

Jeff Wilson jwilson80@ivc.edu

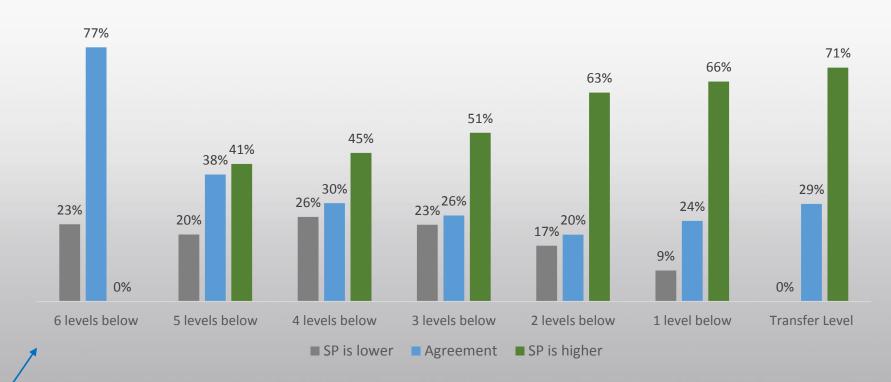
http://bit.ly/esl-mm-18



# Self-Placement vs. Actual Placement

Students rate themselves higher than their placement.

This self-evaluation measure is not independent because students were already enrolled in a course and aware of their placement.





# IRVINE VALLEY Predicted Placement vs. **Actual Placement** ± One Level

