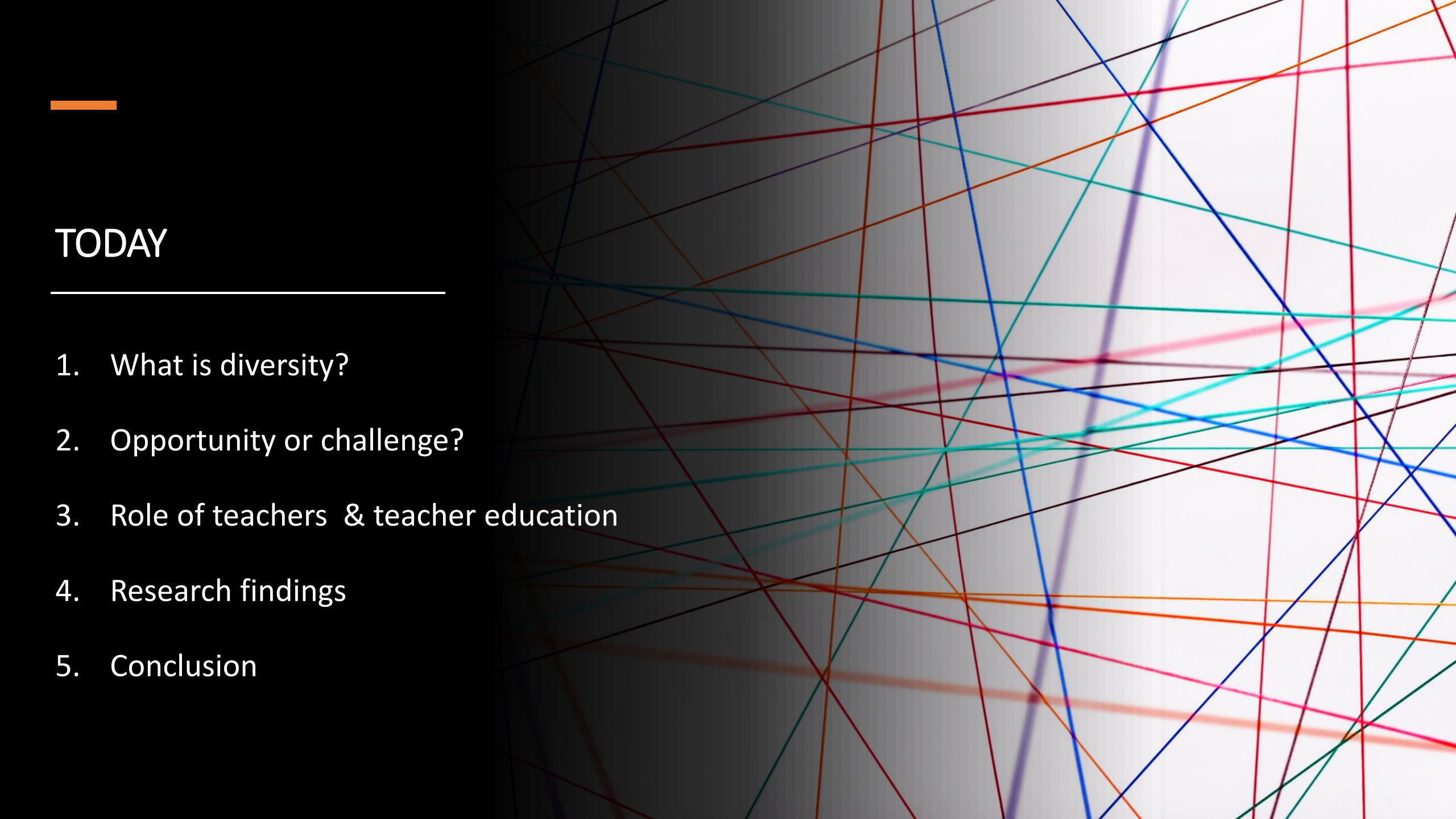
Diversity & Teacher Education

Prof. dr. Orhan Agirdag

TODAY

1. What is diversity?
2. Opportunity or challenge?
3. Role of teachers & teacher education
4. Research findings
5. Conclusion



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Diversity

= Cultural differences between groups of people

- Social class (rich / poor)
- Region (rural / urban)
- Ethnicity (minority / majority)
  - Religion
  - Mother tongue
  - Racial appearance
  - National origin
- Gender (male / female)

→ **Focus on cultural aspects**

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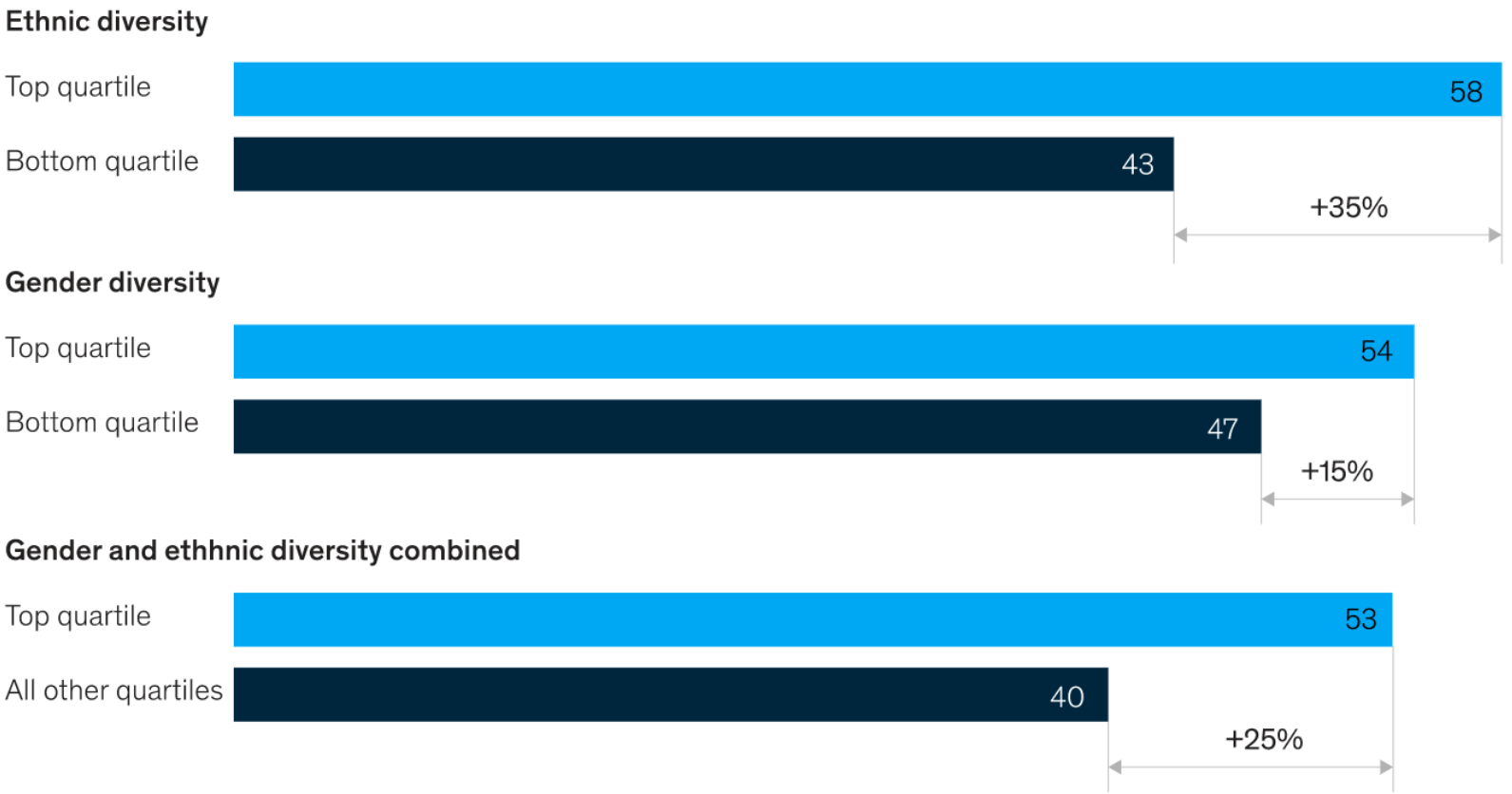
Opportunities of diversity

- Innovation
- Diverse organizations perform better
- Multilingualism:
  - Cognitive benefits
  - Cultural benefits
  - Economic benefits

The data suggests diversity correlates with better financial performance.

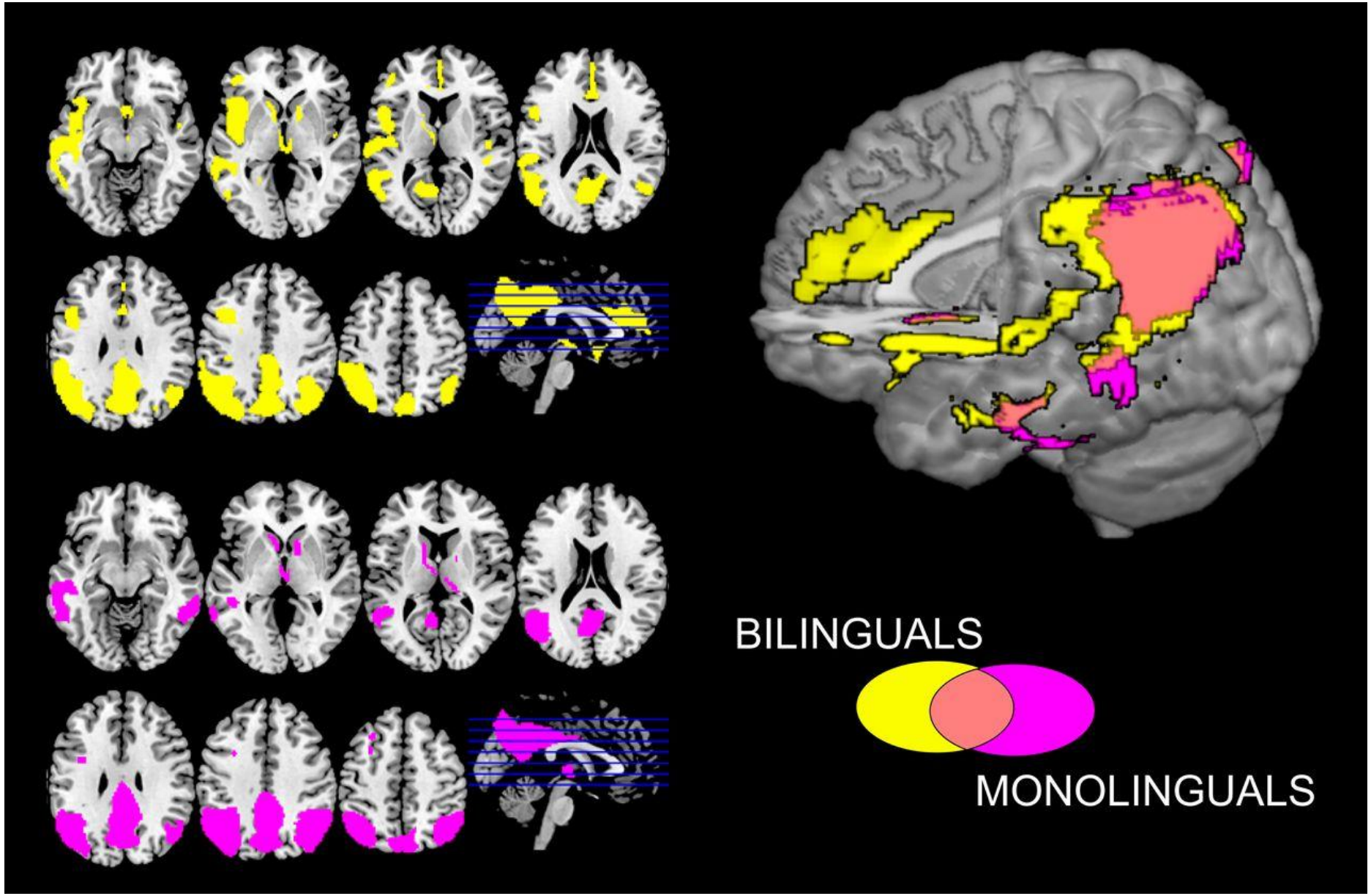
media/mckinsey/business function...
mckinsey.com

Likelihood of financial performance above national industry median, by diversity quartile, %



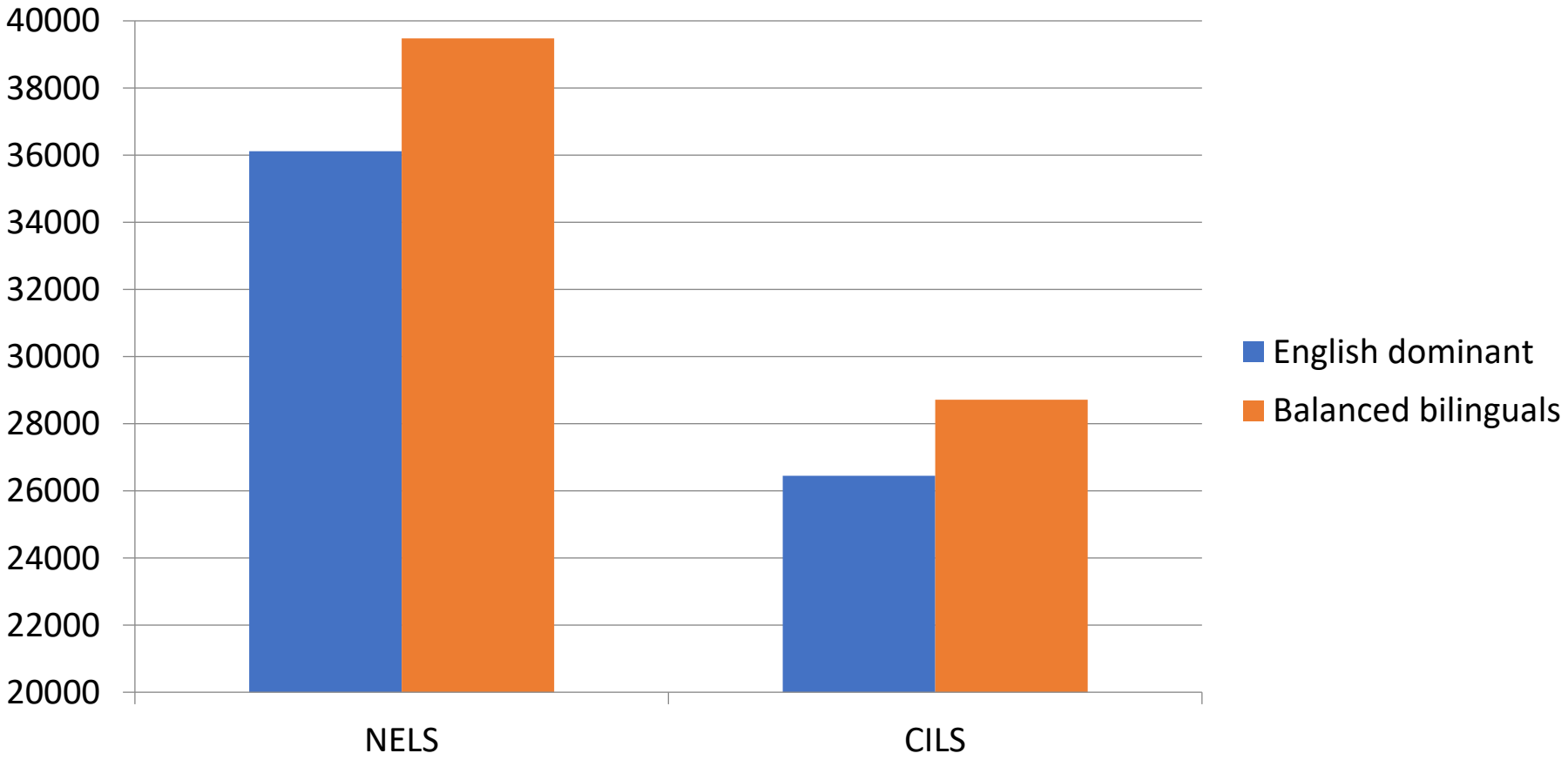
Source: McKinsey Diversity Database

McKinsey & Company



Perani, D., Farsad, M., Ballarini, T., Lubian, F., Malpetti, M., Fracchetti, A., ... & Abutalebi, J. (2017). The impact of bilingualism on brain reserve and metabolic connectivity in Alzheimer's dementia. *Proceedings of the National Academy of Sciences*, *114*(7), 1690-1695.

Annual income difference for all immigrants



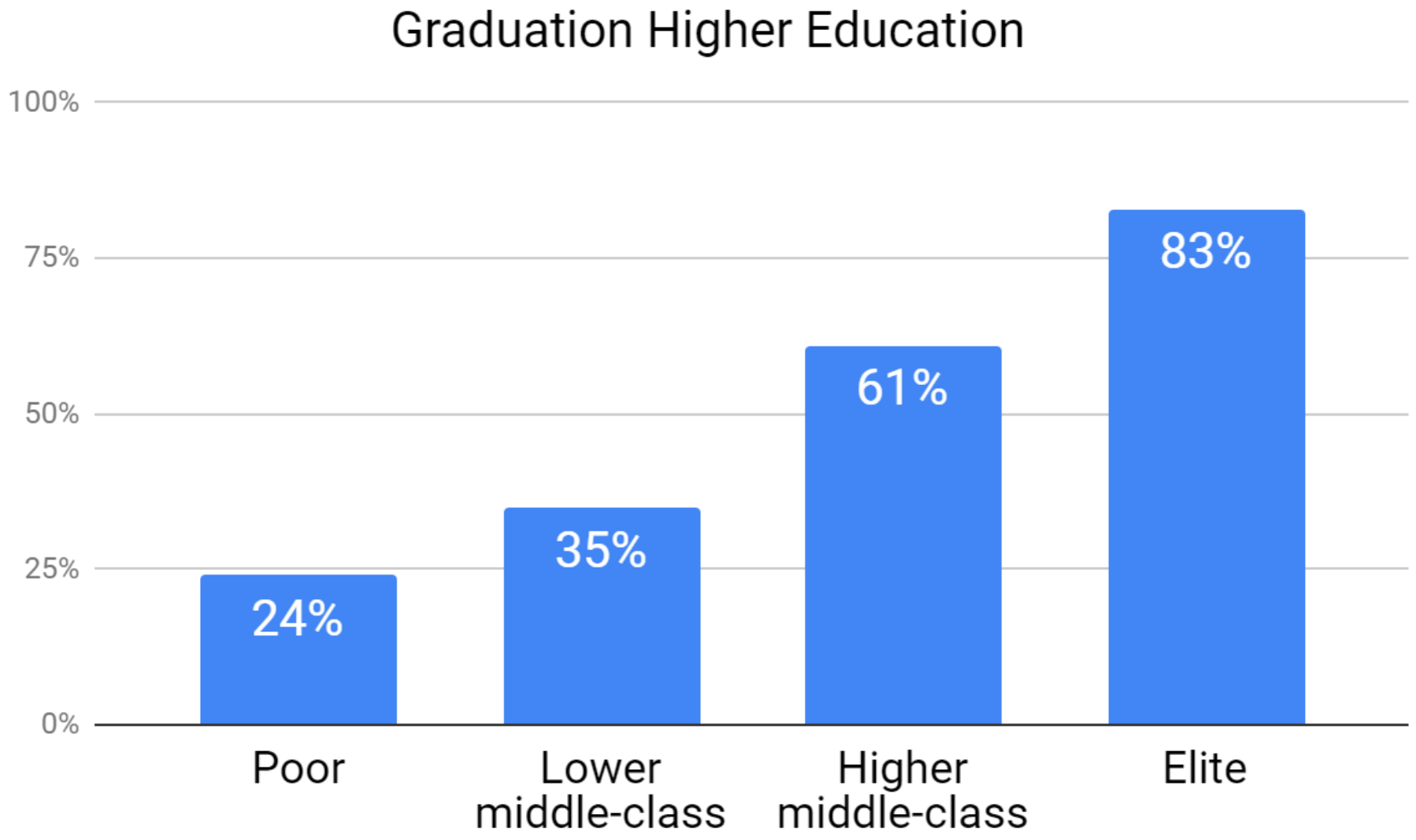
Controlled for: gender, educational attainment, ability, parental ses, national origin, region

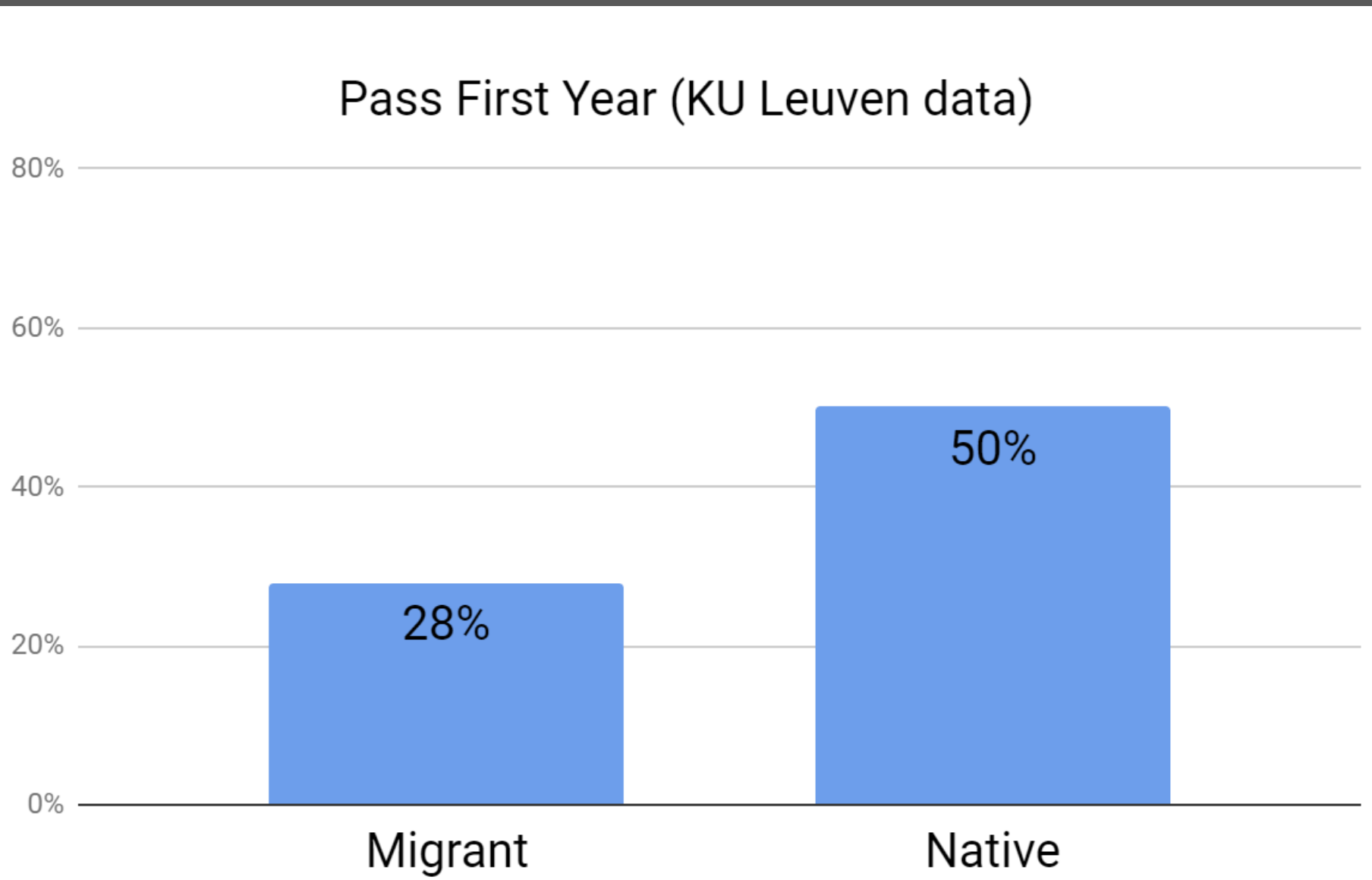
Challenges of diversity

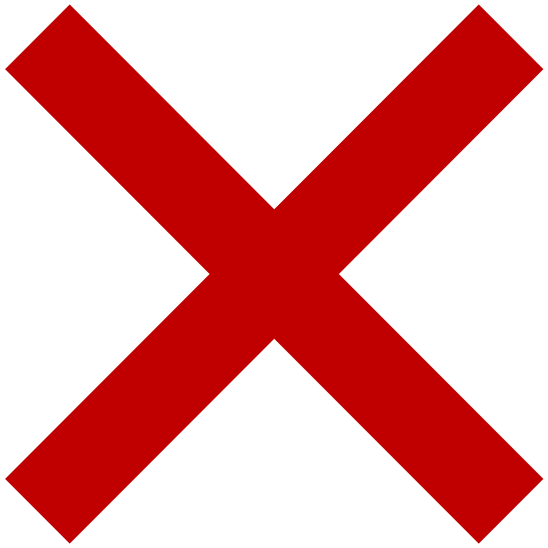
1. **Societal conflict**
   - Religious wars
   - Ethnic clashes
   - Class conflict
2. **Inequalities in education**
   - Social class
   - Language background
   - National origin
   - Gender

PISA 2018 data

- In the Philippines, socio-economically advantaged students outperformed disadvantaged students in reading by 88 score points in PISA 2018 (= +2 years disadvantage for poor students)
- In the Philippines, Native students outperformed immigrants students by 64 points (= + 1,5 years disadvantage for migrants students)
- = Similar levels of inequalities in Belgium


Graduation Higher Education
100%
75%
50%
25%
0%
24%
35%
61%
83%
Poor
Lower middle-class
Higher middle-class
Elite


Pass First Year (KU Leuven data)
80%
60%
40%
20%
0%
28%
50%
Migrant
Native



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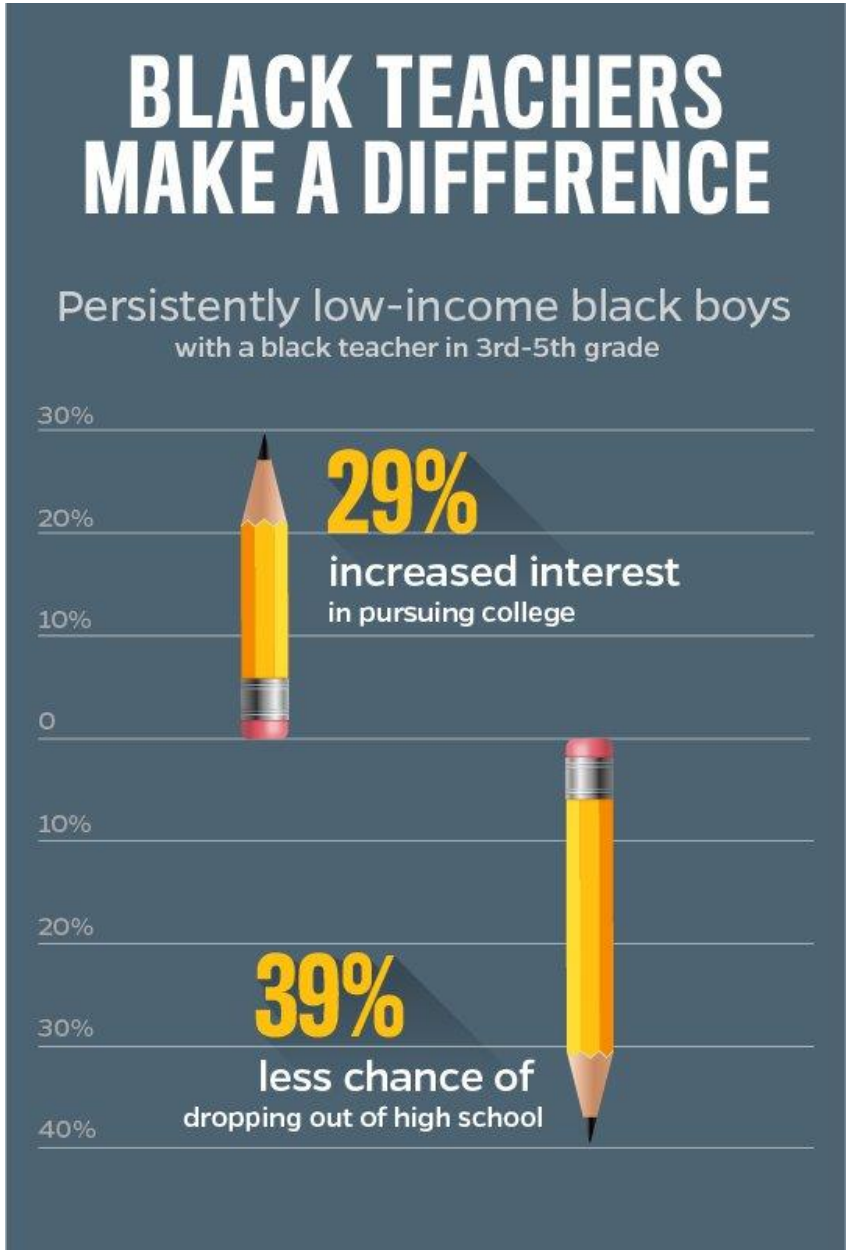
Less inequalities in schools with:

- More diverse teachers
- High cultural sensitivity among teachers
- Less prejudice among teachers
- High academic expectations & growth mindset among teahcers
- Multiculturalist & intercultural school policy
- Avoiding assimilationist & colorblind school policy


BLACK TEACHERS MAKE A DIFFERENCE
Persistently low-income black boys
with a black teacher in 3rd-5th grade
30%
20%
10%
0
10%
20%
30%
40%
29%
increased interest
in pursuing college
39%
less chance of
dropping out of high school

Check for updates

The relationship between faculty diversity and graduation rates in higher education

Rebecca Stout, Cephas Archie, David Cross and Carol A. Carman

Department of Educational Leadership and Policy Analysis, University of Houston-Clear Lake, Houston, TX, USA

ABSTRACT

This study examines the relationship between faculty racial/ethnic diversity and graduation rates of undergraduate students, in particular those from underrepresented racial [illegible] the U.S. national population. Overall graduation rates for underrepresented minority students of all races/ethnicities are positively affected by increased diversity of their faculty.

ARTICLE HISTORY

Received 5 November 2016

Accepted 7 November 2017

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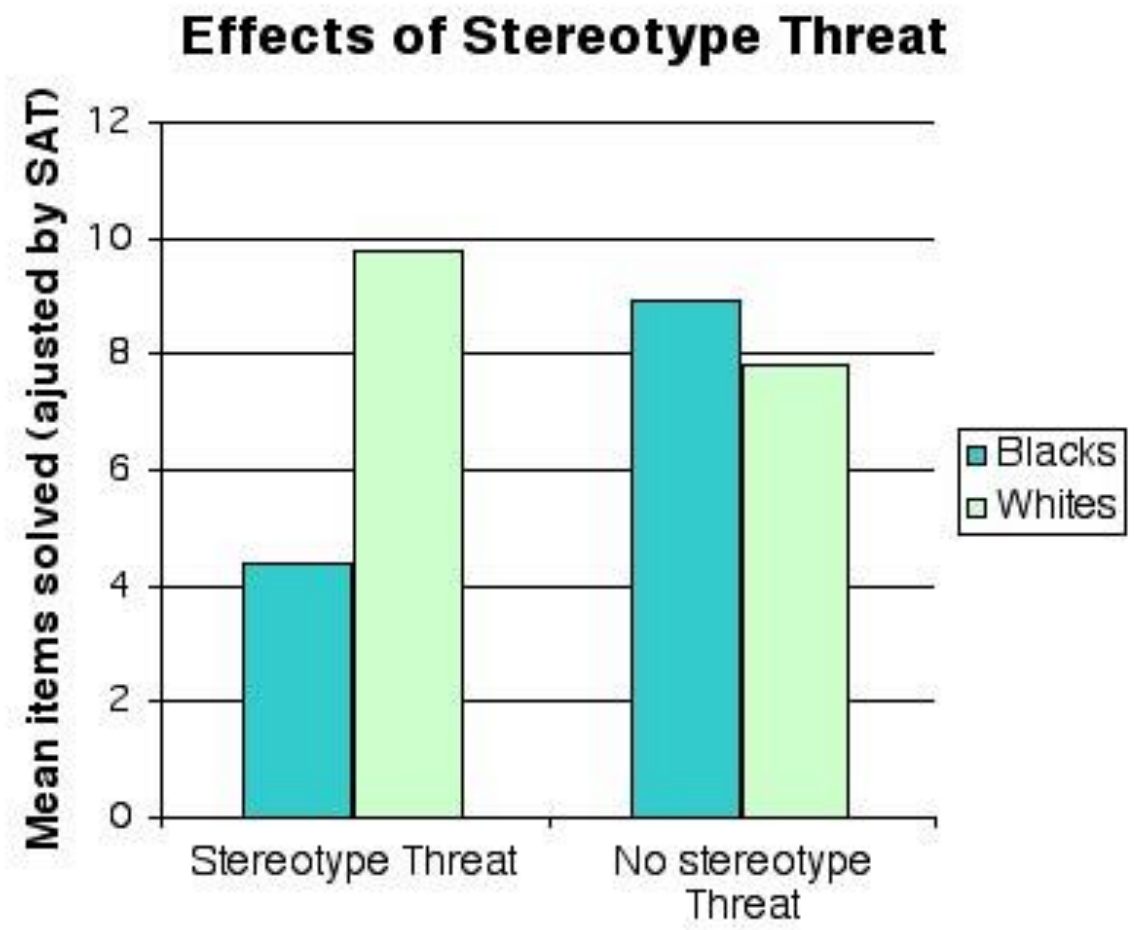
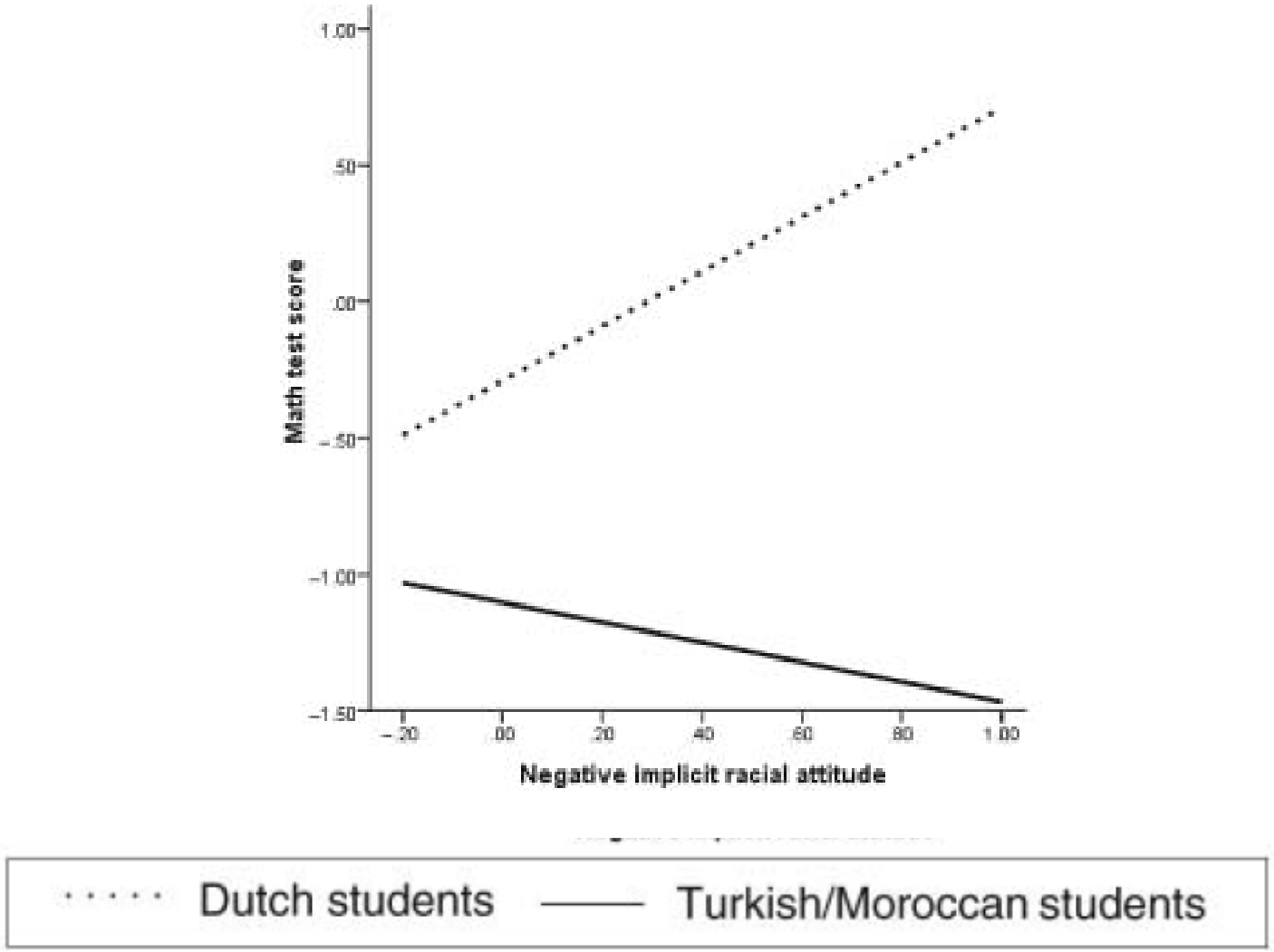
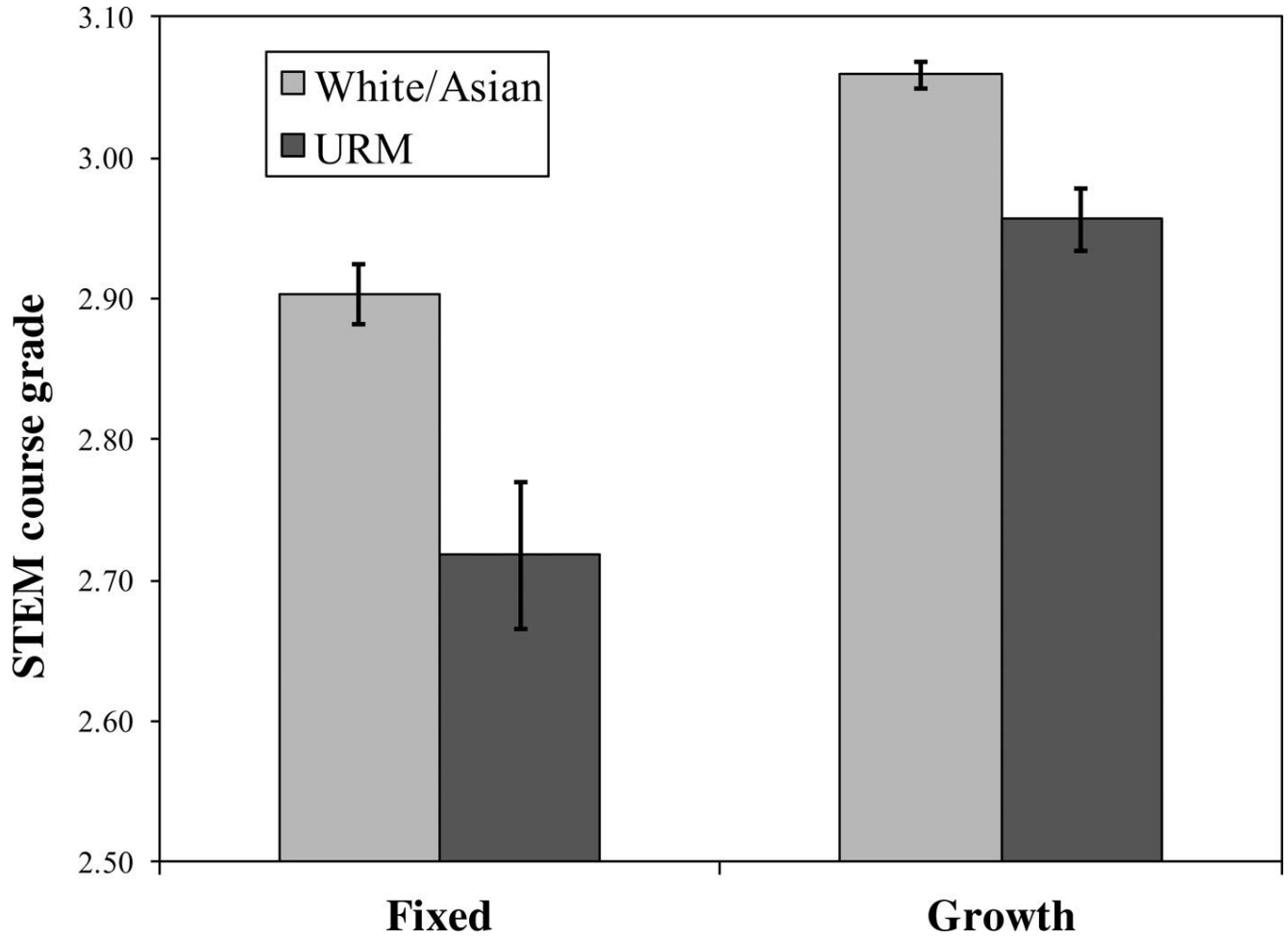


"The Effects of Stereotype Threat on the Standardized Test Performance of College Students (adjusted for group differences on SAT)". From J. Aronson, C.M. Steele (1995)



Van den Bergh et al, 2010


3.10
3.00
2.90
2.80
2.70
2.60
2.50
STEM course grade
White/Asian
URM
Fixed
Growth

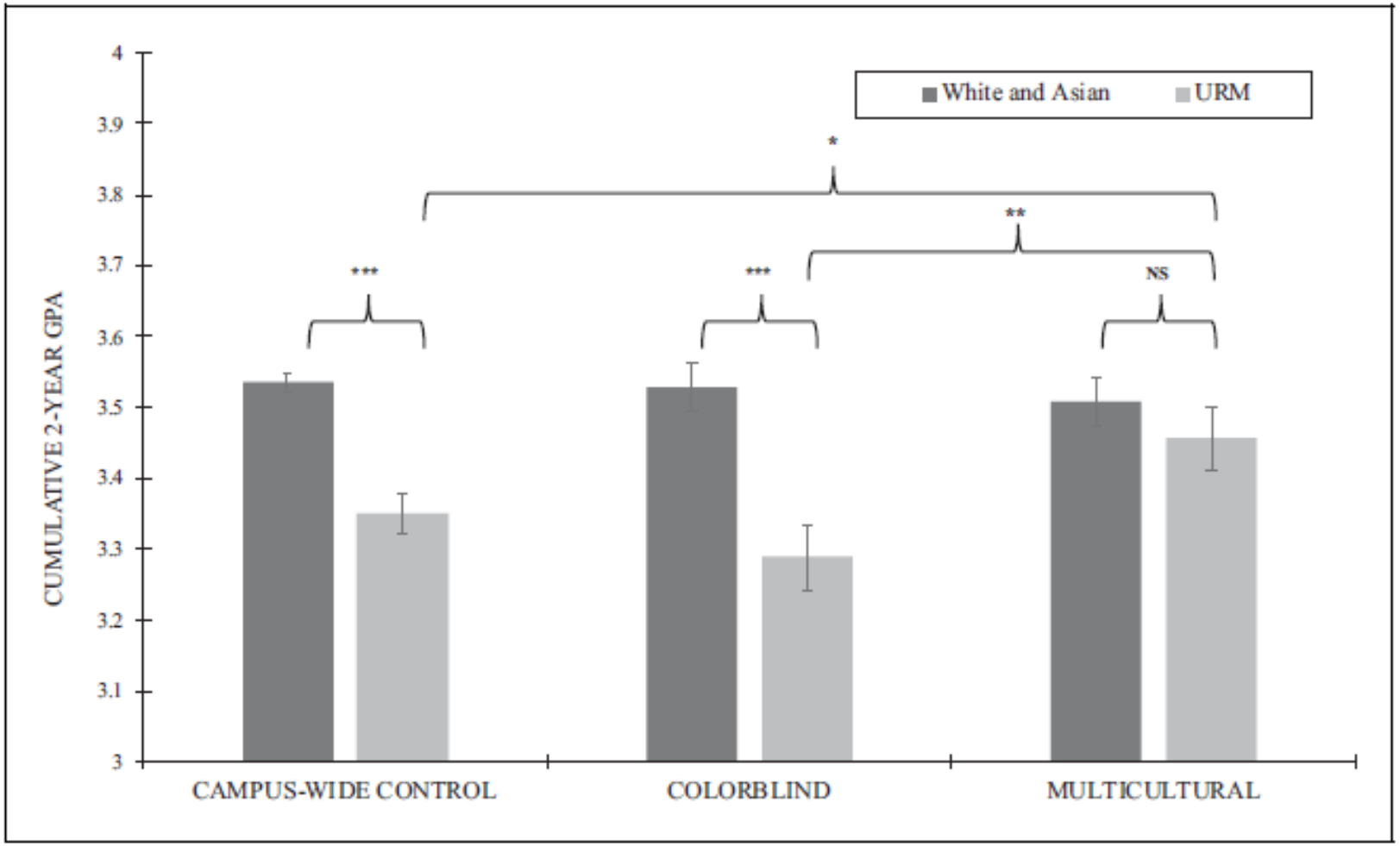


Figure 1. Cumulative 2-year grade point average (GPA) as a function of race and intervention condition. *Note*. Marginal adjusted means are presented. Error bars show standard errors of the mean. Key contrasts are highlighted in this figure.

Routledge
Taylor & Francis Group

Studies in Higher Education

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/cshe20

Diversity approaches matter in international classrooms: how a multicultural approach buffers against cultural misunderstandings and encourages inclusion and psychological safety

Iozefien De Leersnyder, Seval Gündemir & Orhan Ağirdağ

Teacher education → **preparing** teachers

Beliefs

Skills

Knowledge

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Beliefs

What types of teacher beliefs?

- Context dependent!
- 2 dimensions & 5 factors in context of Mindanao, Philippines

Routledge
Taylor & Francis Group

Multicultural Education Review

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rmer20

Development and validation of the multicultural sensitivity scale for pre-service teachers

Shelanee Theresa P. Ruales, Orhan Agirdag & Wim Van Petegem

To cite this article: Shelanee Theresa P. Ruales, Orhan Agirdag & Wim Van Petegem (2020) Development and validation of the multicultural sensitivity scale for pre-service teachers, Multicultural Education Review, 12:3, 177-194, DOI: 10.1080/2005615X.2020.1808926

To link to this article: https://doi.org/10.1080/2005615X.2020.1808926

Research design

- Teacher education institutions in Mindanao, Philippines
- Wave 1: 573 pre-service teachers
- Wave 2: 461 pre-service teachers
- Exploratory Factor Analysis
- Confirmatory Factor Analysis

Teacher diversity beliefs (45 items)

Personal Dimension

- Ethnocentrism
- Intercultural Effort
- Intercultural Stress

Professional Dimension

- Exhibiting Multiculturalism
- Monocultural Orientation

What can teacher education do about it?

Springer Link

Published: 27 June 2020

Increasing pre-service teachers' multicultural sensitivity through online learning

Shelanee Theresa P. Ruales, Wim Van Petegem, Josefina M. Tabudlong & Orhan Agirdag

Education and Information Technologies **26**, 165–186 (2021) | Cite this article

501 Accesses | **1** Citations | **4** Altmetric | Metrics

The role of pre-service teacher education is crucial in culturally diverse contexts where conflict exists. Thus, this study examined whether pre-service teachers' multicultural sensitivity can be increased through a Transformative Learning Theory-based online course. The developed course underwent expert evaluation and pilot-testing before its implementation. T-test comparisons of pre- and post-tests with 97 Filipino pre-service teachers show a statistically significant increase in overall multicultural sensitivity. While the effect size is modest based on Cohen's d, 84.5% of the pre-service teachers claimed to have experienced positive change. All pre-service teachers who claimed to have experienced positive change identified the individual reflection activities to have influenced their change. This study can be replicated in other contexts. The course design can be adopted, but some of the course content has to be contextualized. The findings of this study can inform both theory and practice on how multicultural sensitivity can be increased and how Transformative Learning Theory can be applied in online course design.

Table 2 Descriptive statistics, reliability analysis, paired samples test, and effect size

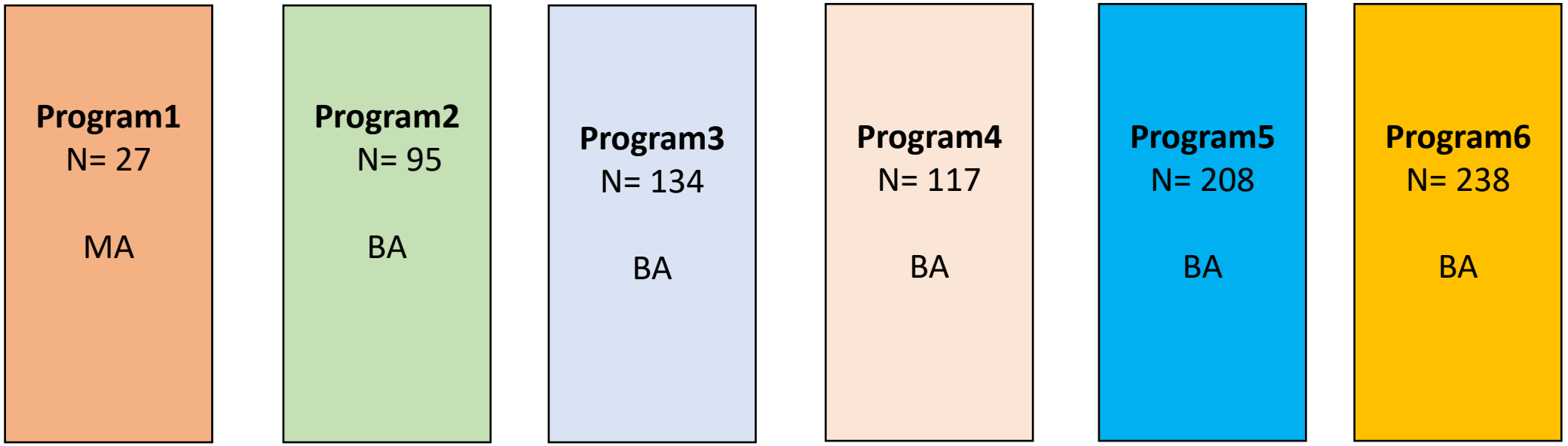
	N	Min	Max	Mean	SD	Cronbach's Alpha	Mean difference	Std. deviation	Std. error mean	t	Significance (2-tailed)	Cohen's d
Ethnocentrism												
Pre	97	1.60	6.60	3.984	.856	.613	.227	1.028	.104	2.173	.032	.244
Post	97	1.00	7.00	4.210	.992	.743						
Intercultural Effort												
Pre	97	2.25	7.00	5.833	.855	.783	.219	.875	.089	2.465	.015	.267
Post	97	3.25	7.00	6.052	.783	.779						
Intercultural Stress												
Pre	97	2.00	7.00	5.208	.916	.708	.066	1.016	.103	.639	.524	.068
Post	97	1.00	7.00	5.274	1.015	.793						
Exhibiting Multiculturalism												
Pre	97	3.63	7.00	5.871	.691	.822	.233	.710	.072	3.237	.002	.335
Post	97	3.63	7.00	6.104	.698	.865						
Monocultural Orientation												
Pre	97	3.17	7.00	5.182	.906	.688	−.046	1.004	.102	−.455	.650	.049
Post	97	1.00	7.00	5.136	.982	.771						
Overall Multicultural Sensitivity												
Pre	97	3.86	6.71	5.263	.571	.857	.160	.656	.067	2.400	.018	.258
Post	97	3.48	7.00	5.422	.660	.904						

Research design (Belgium)

- Beliefs about student's home languages (multilingualism)
- Descriptive analyses: how are these language beliefs?
- Regression analyses: what teacher education factors matter?

Data collections

819 pre-service teachers



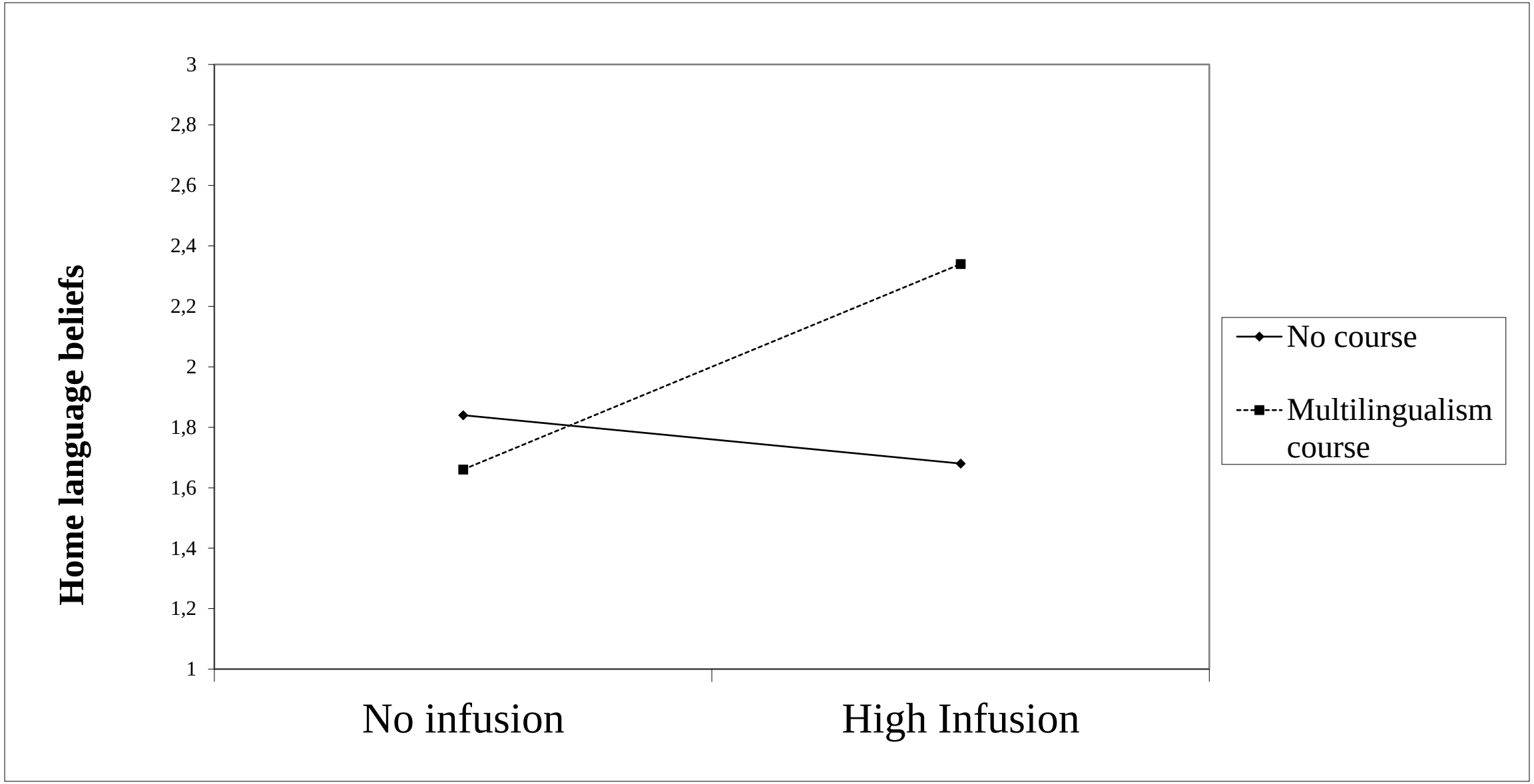
531 (64.8%) female

783 (95.6%) native white

Table 2. Items of preservice teachers' beliefs about students' home languages.			
Items	M	SD	(Strongly) Agree
1. Students should not speak home languages on the playground	2.05	1.23	33.4%
2. Students should not speak home languages in the classroom	1.32	1.11	60%
3. To stimulate proficiency in Dutch, students could be punished for speaking home languages at school	2.71	1.05	12.8%
4. If students are allowed to speak home languages, other students will be excluded	1.61	1.02	46.2%
5. A school library must also offer books in students home languages	2.27	1.05	44.2%
6. Students should have an opportunity to learn their mother tongue at school	1.60	.965	15.4%
7. Schools should offer regular subjects in pupils' mother tongue	1.25	.886	7.6%
8. In the classroom, students should be allowed to help each other in their mother tongue	2.33	1.12	47.1%
Note. The percentage of preservice teachers responding "agree" and "strongly agree" is shown (N= 769, min.=0, max=4).			

What teacher education characteristics impact?

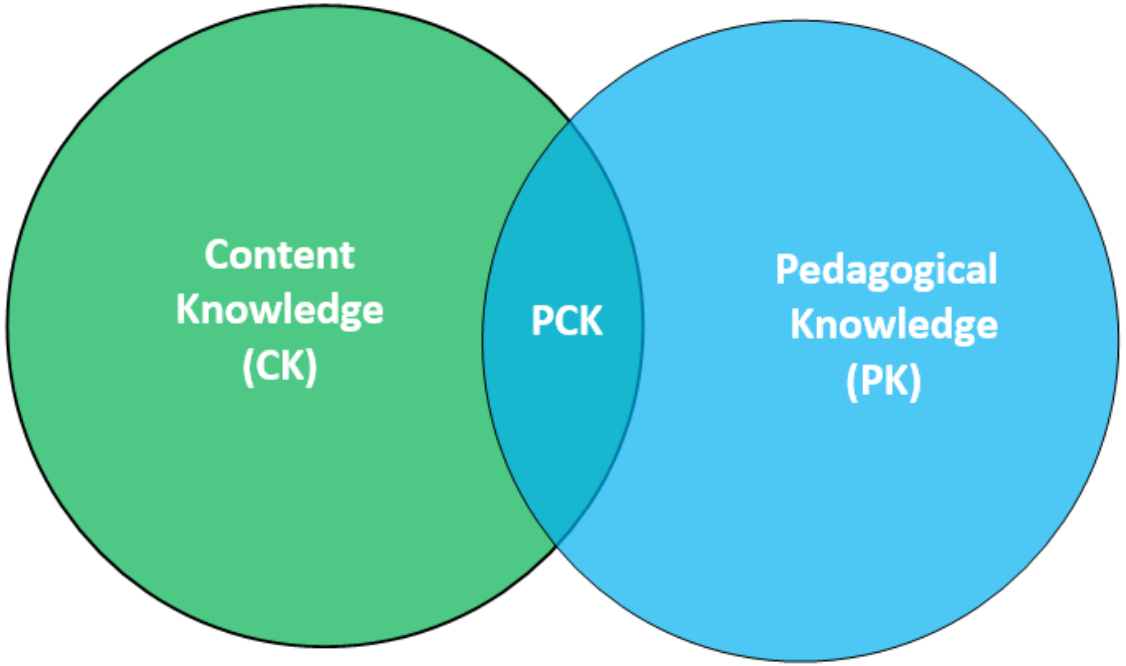
- Campus intercultural contacts
- A stand-alone course on cultural diversity
- A stand-alone course on multilingualism BUT
- ONLY when there is enough infusion throughout other courses


Home language beliefs
3
2,8
2,6
2,4
2,2
2
1,8
1,6
1,4
1,2
1
No infusion
High Infusion
No course
Multilingualism course

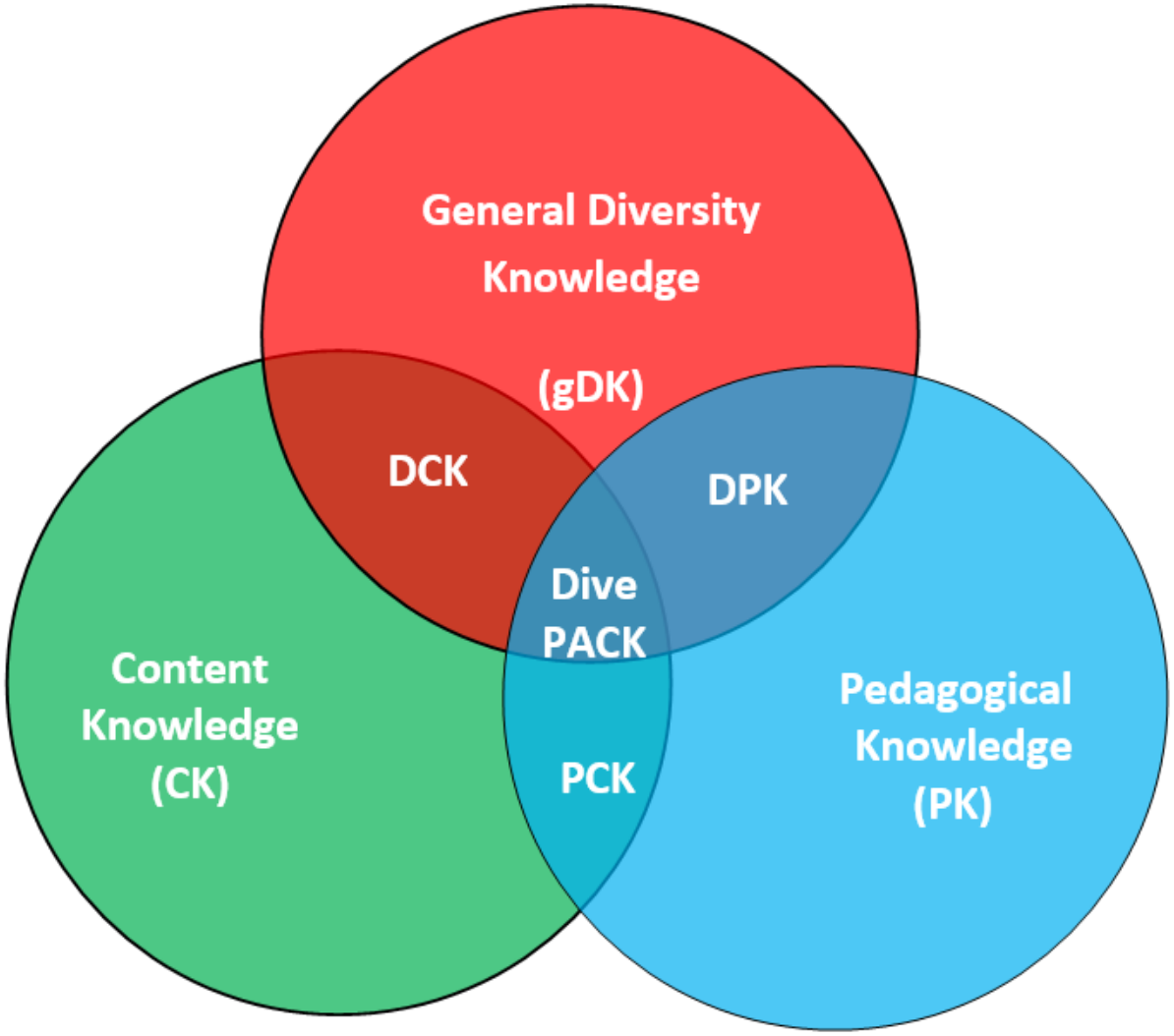
Teacher education → **preparing** teachers

Knowledge

Shulman’s model of pedagogical content knowledge (1986)



DivePACK Framework



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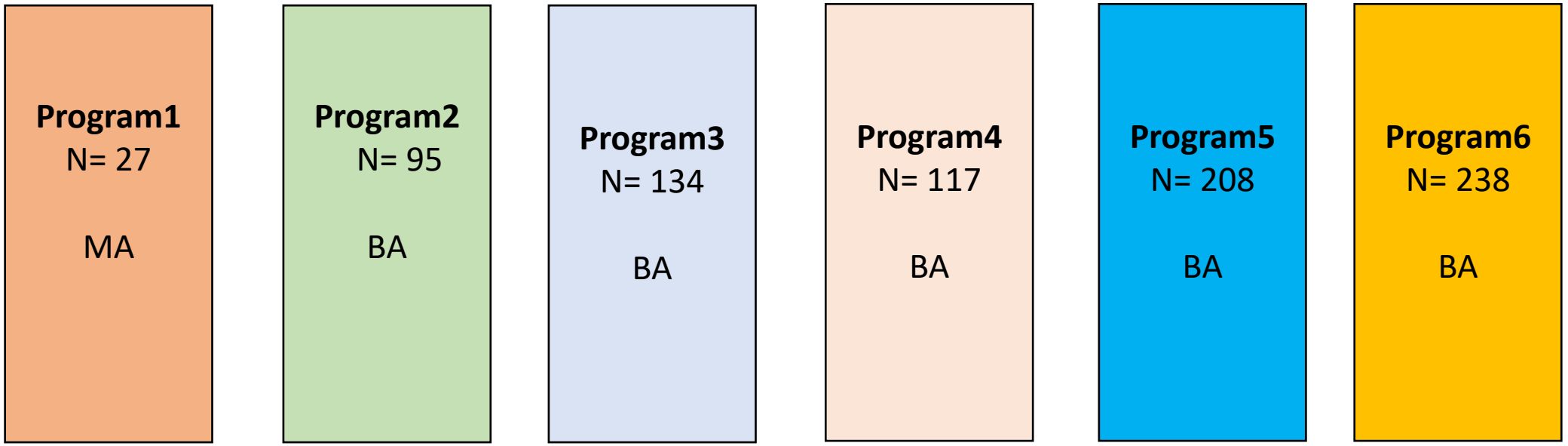

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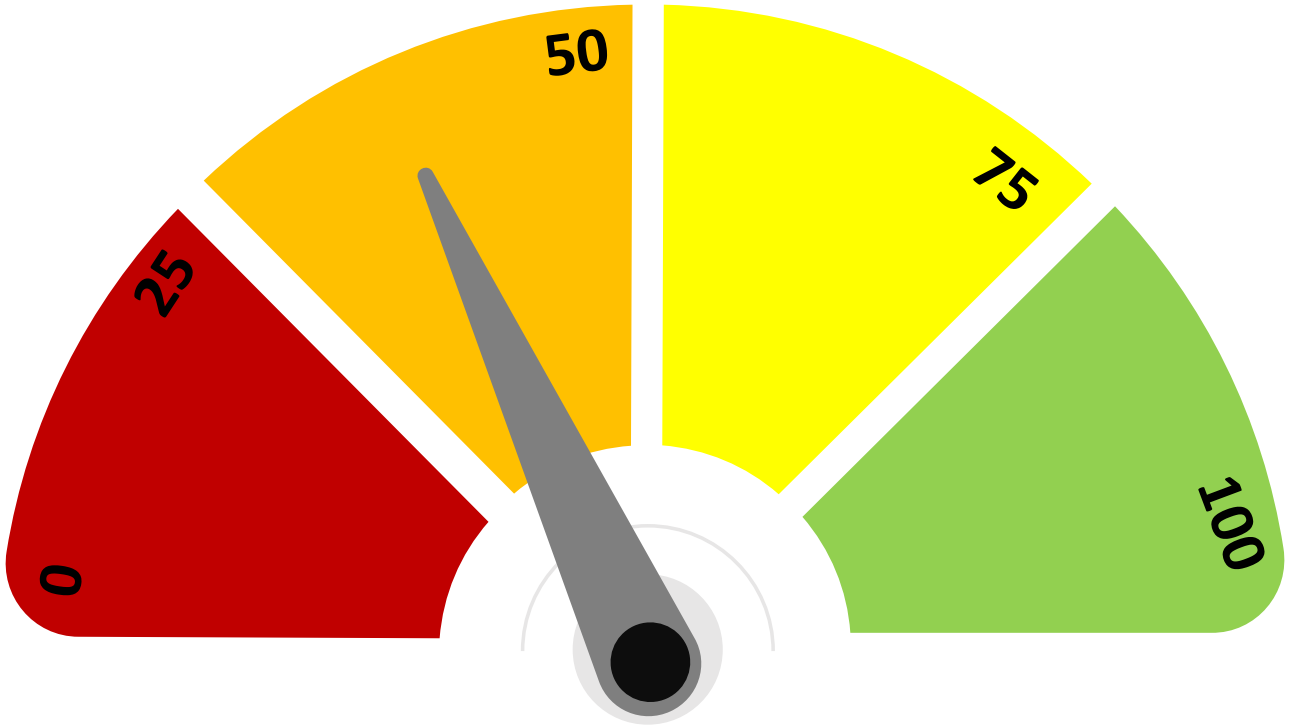
783 (95.6%) native white

General diversity knowledge



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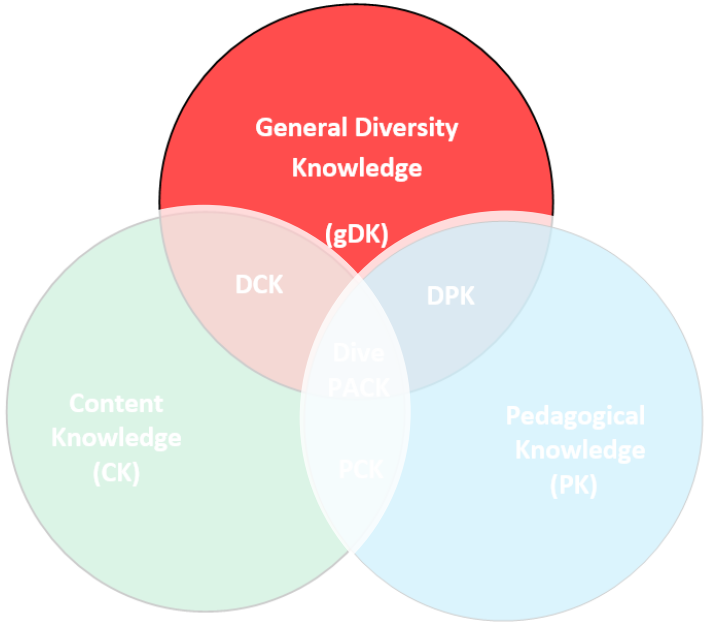
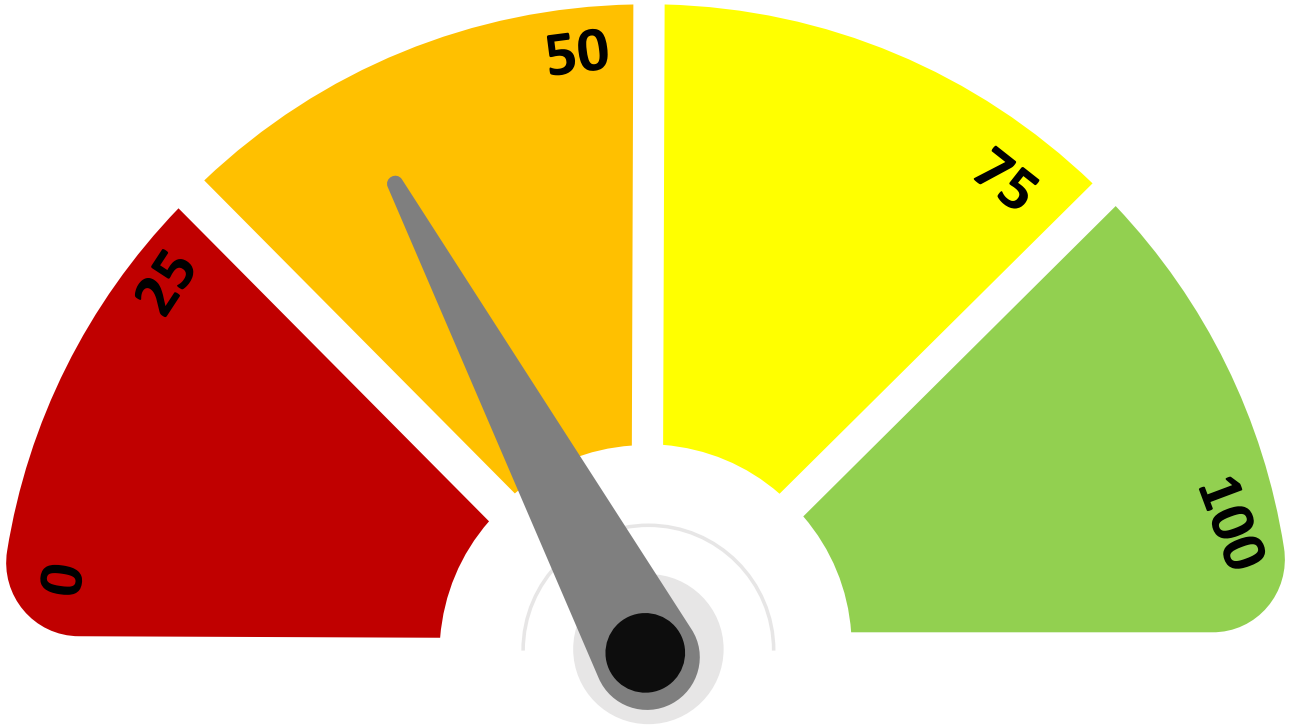
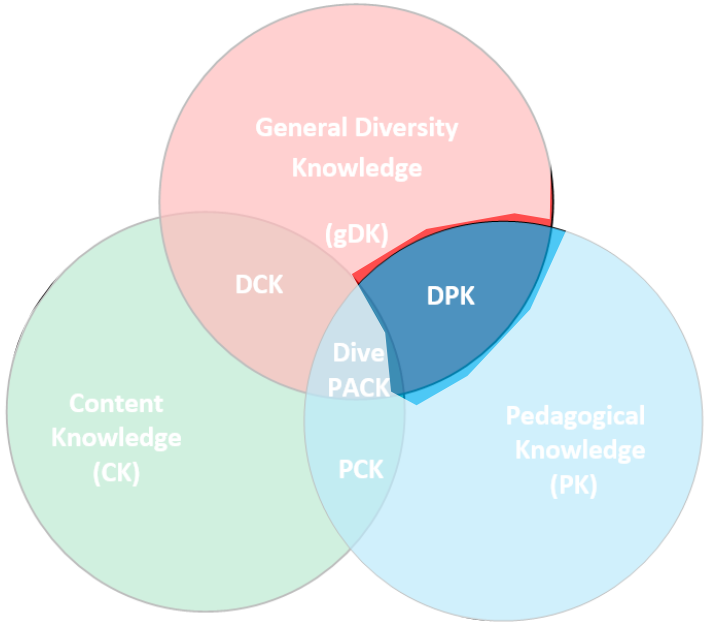


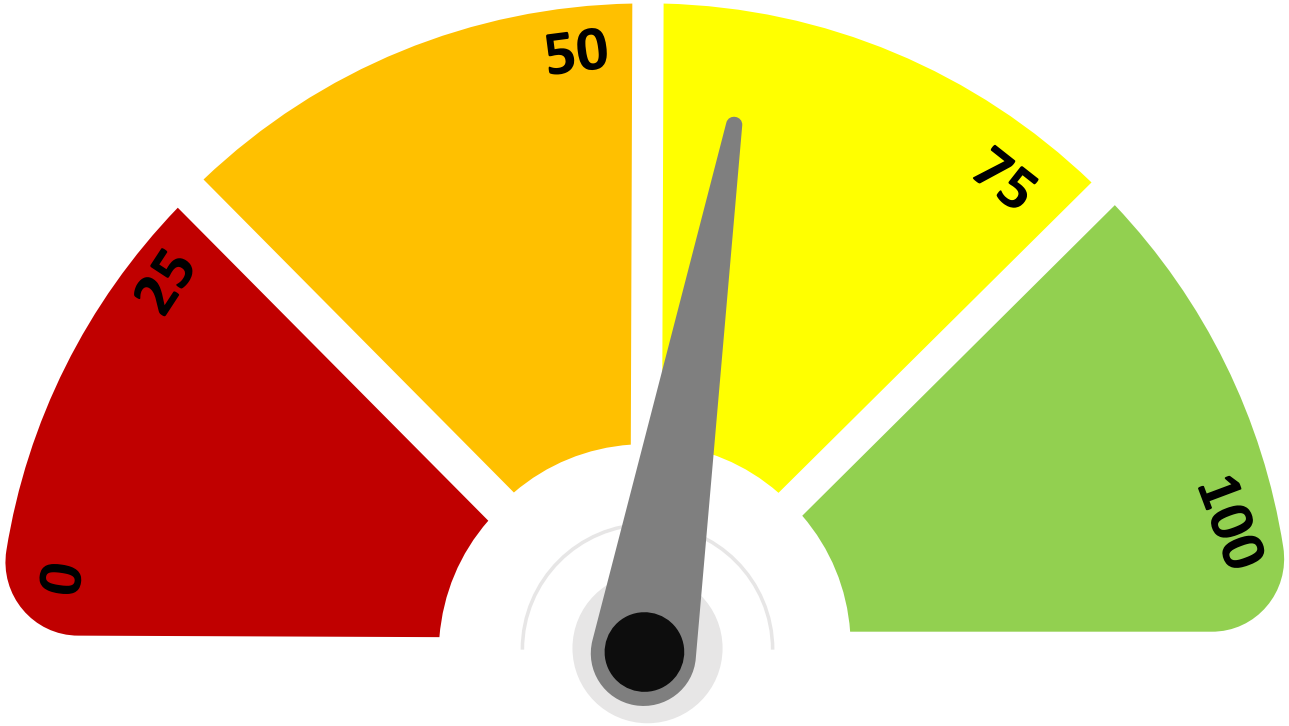
Diversity pedagogical knowledge



36.95



Diversity content knowledge (history, MA)



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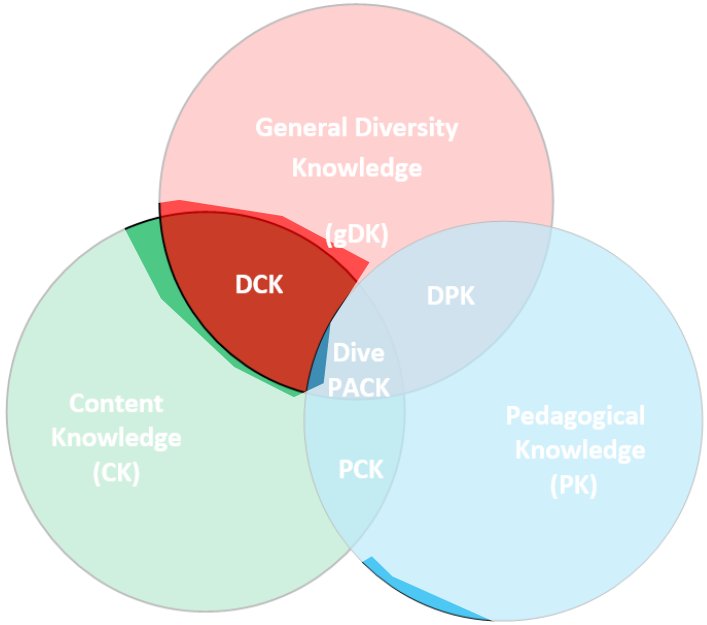
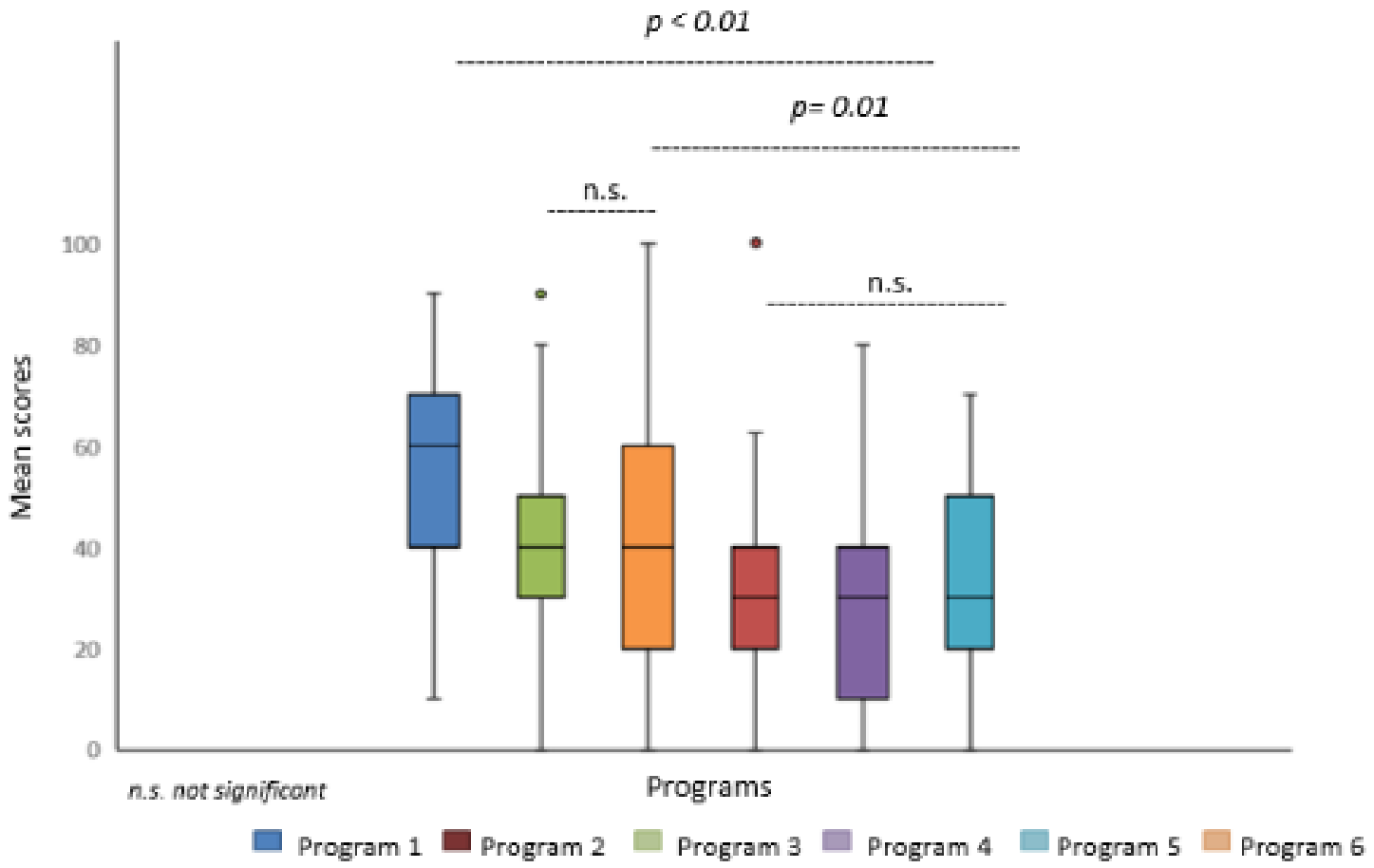
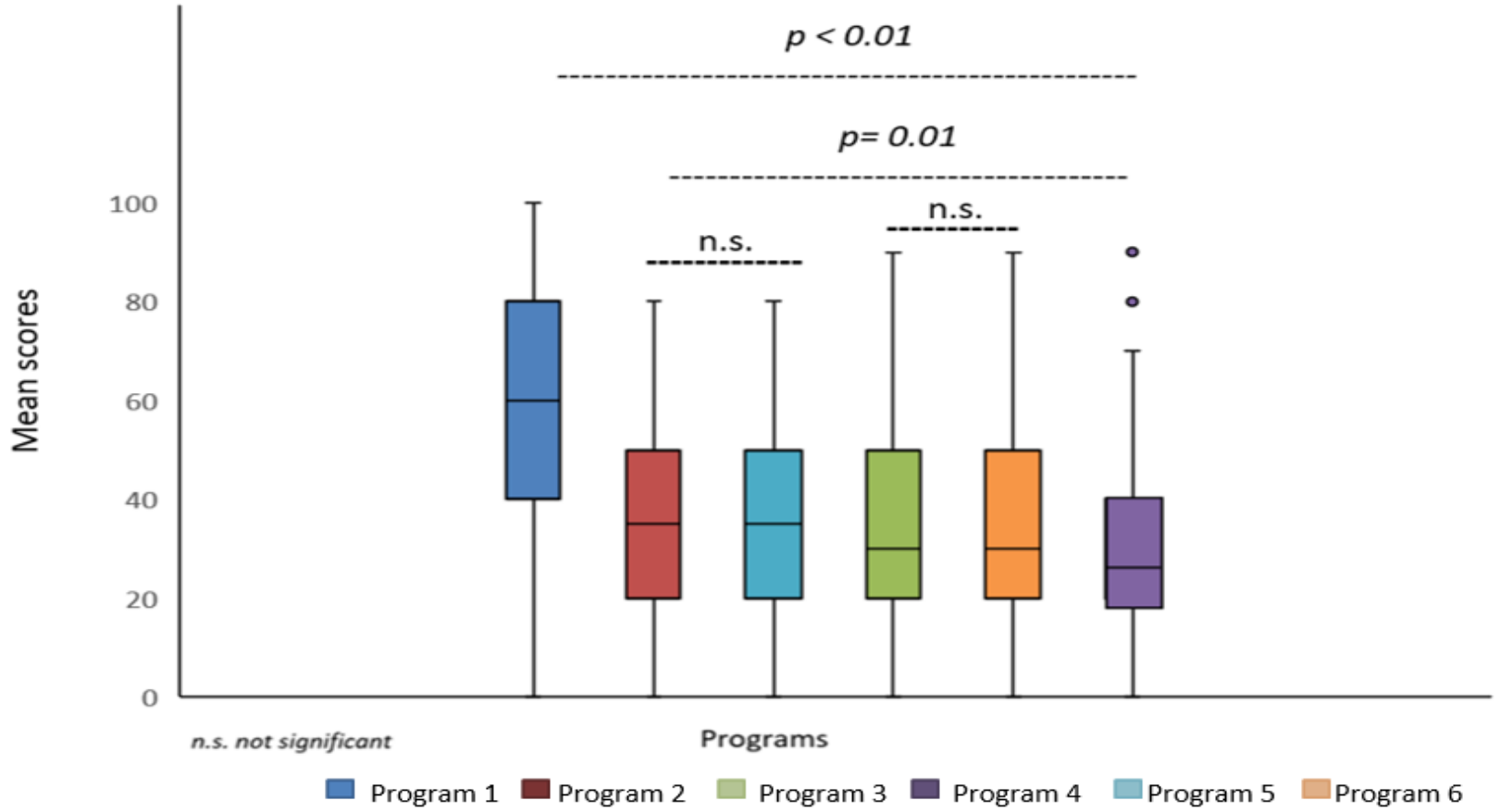


General diversity knowledge



Diversity pedagogical knowledge



Multilevel regression on GDK

	Model
Variables	β (SE)
Current OTL	
Single diversity course	**n.s.**
Single multilingualism course	**n.s.**
Infused curriculum	**2.65 (0.67)*** **
Intercultural fieldwork (stage !)	**n.s.**
Intercultural contact (friends)	**n.s.**
Intercultural contact (pupils)	**n.s.**
Grade	**n.s.**
Previous OTL	
Intercultural contact (friends)	**n.s.**
Intercultural contact (teachers)	**n.s.**
Control variables	
Gender (0= male)	**-2.48 (1.42)*** **
Ethnicity (0= Western)	**n.s**
Language knowledge	**3.21 (0.83)*** **
Parental education	**n.s.**

$*p < 0.05$ $**p < 0.01$ $***p < 0.001$

Multilevel regression on DPK

	Model
Variables	β (SE)
Current OTL	
Single diversity course	**n.s.**
Single multilingualism course	**n.s.**
Infused curriculum	**2.60 (0.74)*** **
Intercultural fieldwork (stage !)	**n.s.**
Intercultural contact (friends)	**n.s.**
Intercultural contact (pupils)	**n.s.**
Grade	**2.48 (0.96)** **
Previous OTL	
Intercultural contact (friends)	**n.s.**
Intercultural contact (teachers)	**n.s.**
Control variables	
Gender (0= male)	**5.92 (1.57)*** **
Ethnicity (0= Western)	**7.64 (3.54)***
Language knowledge	**n.s**
Parental education	**2.19 (0.90)** **

*$p < 0.05$ **$p < 0.01$ ***$p < 0.001$

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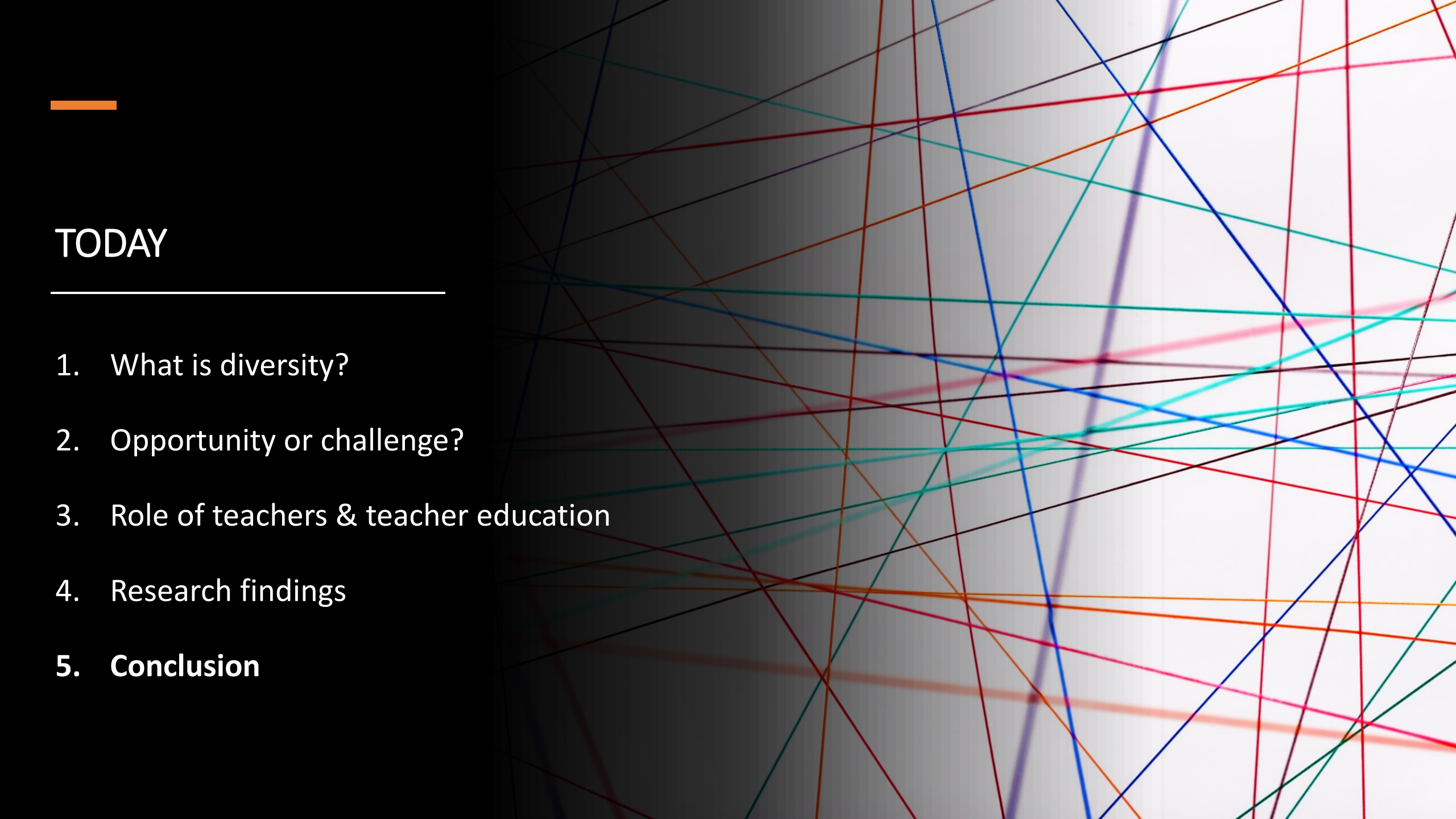

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