APPENDIX TABLE OF CONTENT

Appendix A1. *Dissertation Outline.*

Ch 1. Introduction	The introduction chapter of this dissertation lays out the rationale and objectives for the study, which focuses on exploring the educational resilience of unaccompanied and separated children (UASCs). The rationale for this dissertation stems from the growing global population of UASCs and forced migrant children, their exposure to various risks both before and after migration, and the noticeable research gap regarding their educational resilience. The objectives of this research are to understand what socio-ecological factors in UASCs' environment contribute to the educational resilience of UASCs and how socio-interactional processes that arise from interactions between UASCs and their environment contribute to the educational resilience of UASCs. To answer these questions, my dissertation uses a convergent parallel mixed-methods design with three different studies. Study I is a systematic mixed-methods literature review analyzing existing evidence on risk and resilience factors influencing UASCs' education in high-income countries. Study II is a quantitative secondary data analysis study of PISA data to understand how socio-ecological factors contribute to the promotion and protection of education for UASCs in Jordan. Study III is a qualitatively driven mixed-methods study using interviews and questionnaires to understand how socio-ecological factors support the navigation and negotiation of education by UASCs in Greece. Following the three studies, a discussion chapter integrates findings from each study in order to gain insights about how socio-interactional processes influence the educational resilience of UASCs. Finally, I explain my reflexivity and positionality in relation to this topic and outline this dissertation's contribution to knowledge.
Ch 2. Literature Review	In this literature review, I introduced the conceptual and theoretical frameworks guiding my dissertation research on the educational resilience of unaccompanied and separated children (UASCs). First, I defined UASC status and clarified the legal terminology related to UASCs. Next, I conceptualized risk factors, drawing on dose gradient and risk gradient frameworks from trauma studies to explain how singular and cumulative risks shape UASCs' educational outcomes and experiences. I then conceptualized educational resilience, outlining how it has evolved through four waves of resilience research, from an initial focus on risk and protective factors to recent critical approaches incorporating socio-ecological contexts. In doing so, I distinguished between risk, promotive, and protective factors influencing resilience. Subsequently, I conceptualized educational outcomes and experiences as quantitative and qualitative information, respectively, that together illustrate UASCs' educational trajectories. My theoretical framework integrates Bronfenbrenner's socio-ecological theory to identify resilience factors and Vygotsky's socio-interactional theory to comprehend resilience processes. Finally, I adopted an epistemologically pluralist approach that leverages complementary paradigms to develop multifaceted understandings of UASCs' educational resilience. Through these

	conceptual, theoretical, and epistemological frameworks, I lay the groundwork for empirical studies that investigate factors and processes enabling UASCs to achieve positive educational outcomes and experiences despite adversity.
Ch 3. Study I – Systematic Review	OBJECTIVES: Between 2015 and 2022, Europe alone received over 300,000 asylum applications from unaccompanied and separated children (UASCs) who had their education disrupted due to conflict and war. This systematic mixed-methods review aimed to identify risk and resilience factors that influence the educational trajectories of UASCs in high-income countries. It explored quantitative and qualitative evidence on risk and resilience factors associated with UASCs' educational outcomes and experiences. METHODS AND ANALYSIS: A systematic mixed-methods review of peer-reviewed journal articles and gray literature, namely doctoral theses and dissertations, published between 2000 and 2020 was conducted across 12 bibliographic databases, leading to eighteen studies meeting the inclusion criteria after screening. The study selection process involved deduplication of search results, title and abstract screening, and full-text screening, done in accordance with dual-reviewer blind screening. Data extraction and synthesis involved quantitative meta-integration and meta-ethnographic synthesis, respectively, done in accordance with double-blind coding procedures to reduce bias. Critical appraisals for risk of bias, trustworthiness, and methodological quality using the CASP (Critical Appraisal Skills Programme) checklists and confidence in discrete review findings using the GRADE-CERQual approach were conducted. FINDINGS: Twenty-six factors were identified as risk and resilience factors related to five socio-ecological levels: child, microsystem, mesosystem, exosystem, and macrosystem. Young mothers, UASCs who experienced immigration detention, and UASCs whose immigration statuses are unknown or pending were found particularly vulnerable to risk factors jeopardizing their education. Microsystemic and mesosystemic factors played the most significant role in educational resilience for these vulnerable UASC children. NOVELTY AND IMPROVEMENT: This review provides a comprehensive socio-ecological understanding of educational resilience processes for UASCs. Microsystemic and mesosystemic factors were found to play the most important role in the educational resilience of UASCs. The findings can inform research, policy, and practice to better support UASCs' education through resilience-focused interventions. Further research should address key evidence gaps and test targeted interventions to support resilience.
Ch 4. Study II – Jordan Study	OBJECTIVES: Limited research exists on the underlying processes through which socio-ecological factors contribute to the educational resilience of unaccompanied and separated children (UASCs). This can be attributed to a lack of quantitative reporting on the educational outcomes of UASCs. The study examined the relationship between UASC status and educational achievement among Palestinian refugees in Jordan using the PISA 2009 dataset. It identified socio-ecological factors at the student-level, teacher-level, and school-level that are associated with the promotion and protection of education for this vulnerable group. METHODS AND ANALYSIS: The sample comprised 410 Palestinian refugee students in Jordan, of whom 91 were identified as UASCs. Correlational analysis examined the relationship

	between UASC status and educational achievement. Hierarchical regression analysis then identified socio-ecological factors impacting educational achievement after controlling for student, teacher, and school variables. The main effects and interaction effects in the regression models revealed key promotive and protective processes. FINDINGS: Findings showed that UASC status was negatively correlated with achievement across all subjects. However, female gender, higher educational, social, and cultural status, a positive class disciplinary climate, positive teacher-student relations, and higher school use of ability grouping provided promotive effects on achievement for UASCs. Higher teacher use of structuring and scaffolding strategies provided a protective-enhancing effect on reading achievement for UASCs. Higher school use of ability grouping provided a protective-stabilizing effect on both reading achievement and scientific achievement for UASCs. In contrast, high school academic selectivity provided a vulnerable-reactive effect on scientific achievement for UASCs. NOVELTY AND IMPROVEMENT: The study highlights the importance of adopting a socio-ecological and socio-interactional framework with robust quantitative approaches to gain an in-depth understanding of UASCs' educational resilience. The identification of microsystemic and mesosystemic factors (those at teacher-level and school-level) as critical promotive and protective assets provides vital insights to inform research, policy, and practice aimed at supporting UASCs' ability to thrive academically despite the risks associated with being UASC.
Ch 5. Study III – Greece Study	OBJECTIVES: Greece is home to large numbers of unaccompanied and separated children (UASCs) who have been forcibly displaced and had their education disrupted. Despite UASC status being associated with high adversity and risk, there is growing research attesting to the educational resilience of UASCs. Recent studies have identified socio-ecological factors that enable UASCs to achieve positive educational outcomes. However, limited research exists on the underlying processes through which these factors contribute to positive educational experiences. The objective of this study was to explore how UASCs in Greece navigate or negotiate situations of risk in their new environment to gain educational resilience in comparison to non-UASCs. METHODS AND ANALYSIS: The study used a qualitatively driven mixed-methods approach using the CYRM-R questionnaire and semi-structured interviews collected in Greece from a sample entirely of children of refugee and forced migrant backgrounds (n=25) composed of UASCs and non-UASCs. Qualitatively, reflexive thematic analysis and open, axial, and selective coding were used to identify resilience factors shared between UASCs and non-UASCs and factors unique to each. Quantitatively, Fisher's exact test and Welch's two-sample t-test were used to examine group differences in participants' responses to the CYRM-R questionnaire. FINDINGS: Quantitative analyses revealed UASCs' personal sense of resilience to be tied to the immediate socio-ecological support system around them, while qualitative analyses revealed supportive social workers and financial support access as resilience factors unique to UASCs, and supportive next of kin, supportive principals and other school staff, and supportive teaching staff at community NGOs as factors unique to non-UASCs. NOVELTY AND IMPROVEMENT: By integrating quantitative and qualitative techniques, the study provides empirical evidence on how the socio-ecological context of UASCs shapes their ability to navigate and negotiate risk situations to gain

	positive educational experiences. It identifies the socio-interactional relationship between risk and resilience factors and how they contribute to educational resilience processes.
Ch 6. Discussion	OBJECTIVES: In this discussion chapter, I aim to synthesize the three studies to gain insights about how socio-interactional processes influence the educational resilience of unaccompanied and separated children (UASCs). METHODS AND ANALYSIS: I use different triangulation techniques to integrate the results from the systematic review (Chapter 3), the Jordan study (Chapter 4), and the Greece study (Chapter 5). This includes data triangulation across different sources; methodological triangulation across quantitative, qualitative, and mixed-methods; theoretical triangulation using different frameworks; and investigator triangulation between multiple researchers. FINDINGS: By triangulating the studies, I identify salient socio-ecological factors and socio-interactional processes at the individual, home, school, and community levels that influence UASCs' educational resilience. Additionally, I reveal that educational resilience development among UASCs can be conceptualized as a combination of intermental activities (between the UASC and their environment) and intramental activities (within the UASC), where having supportive relationships at home, school, and community facilitates UASCs to transition over time from their zone of proximal resilience development to their level of actual resilience development. NOVELTY AND IMPROVEMENT: Through diverse triangulation techniques and a critical realist lens, I integrate insights gained across the quantitative, qualitative, and mixed-methods studies in my dissertation. This enables me to synthesize knowledge on the factors and processes shaping UASCs' educational resilience, methodological limitations to consider, and implications for research, policy, and practice in this important area. Overall, the discussion chapter aims to provide an integrated synthesis of my dissertation's findings and contributions using a mixed-methods triangulation approach.

Appendix A2. *DPhil Timeline and Milestones.*

Examination Milestones

ACTION		YEAR I			YEAR II			YEAR III			YEAR IV		
		MT	HT	TT	MT	HT	TT	MT	HT	TT	MT	HT	TT
DISSERTATION	Introduction												
	Literature Review												
	Study I												
	Study II												
	Study III												
	Discussion												
	Conclusion												
EXAMINATION	Transfer of Status												
	Confirmation of Status												
	Viva Voce												

Appendix A3. *Papers written at the same time as writing this dissertation*.

Aleghfeli, Y. K., McIntyre, J., Hunt, L., & Stone, C. (2024). Safety, Belonging and Success in Education for Refugees in Europe: A Systematic Review. *European Journal of Education*, e12852. https://doi.org/10.1111/ejed.12852.

Aleghfeli, Y. K. (2024). Inclusive Teaching and Learning Practices That Promote and Protect Reading and Science Literacy for Palestinian Children. *Education Sciences, 14*(11), 1145. https://doi.org/10.3390/educsci14111145.

Hunt, L., **Aleghfeli, Y. K.**, McIntyre, J., & Stone, C. (2023). Refugees' gendered experiences of education in Europe since 2015: A scoping review. *Review of Education*, *11*(3), e3441. https://doi.org/10.1002/rev3.3441.

Aleghfeli, Y. K., McIntyre, J., Hunt, L., & Stone, C. (2023). *The Hub for Education for Refugees in Europe Knowledge Base: Technical Report and Framework*. University of Nottingham. http://doi.org/10.17639/nott.7307.

Aleghfeli, Y. K., Hunt, L., McIntyre, J., & Stone, C. (2023). *Gendered experiences of refugee education in Europe: a scoping review protocol*. University of Nottingham. http://doi.org/10.17639/nott.7306.

Aleghfeli, Y. K., & Hunt, L. (2021). *Protocol for a systematic mixed-methods review of risk and resilience factors for the education of unaccompanied refugee minors in high-income countries*. International Database of Education Systematic Reviews. https://idesr.org/article/IDESR000002.

Aleghfeli, Y. K. (2021). Conceptualizing educational resilience during the COVID-19 pandemic. *Indian Journal of Career and Livelihood Planning*, *10*(1).

Feinstein, L., **Aleghfeli, Y. K.**, Buckley, C., Gilhooly, R., & Kohli, R. K. (2021). Conceptualising and measuring levels of risk by immigration status for children in the UK. *Contemporary Social Science*, *16*(5), 538-555. https://doi.org/10.1080/21582041.2021.2007279.

Appendix A4. *Statement on contributors.*

Paper 1: Yousef Khalifa Aleghfeli: Conceptualization, Methodology, Investigation, Writing – original draft, Writing – review & editing, Project administration. Lucy Hunt: Research Assistant.

Paper 2: Yousef Khalifa Aleghfeli: Conceptualization, Methodology, Investigation, Writing – original draft, Writing – review & editing, Project administration. Leon Feinstein: Supervision.

Paper 3: Yousef Khalifa Aleghfeli: Conceptualization, Methodology, Investigation, Writing – original draft, Writing – review & editing, Project administration. Sonali Nag: Supervision. Sagarika Unnikrishnan: Research Assistant.

Appendix B1. *Review search record.*

Resource	Search dates	Search string (adapted to each resource)	Databases OR Results screened	Limiters	Results returned
EBSCOhost	1. 30 Apr 2020 2. 30 Dec 2020	(Unaccompanied) AND (Refugee* OR Asylum-seek* OR "Asylum seek*" OR "Displaced person" OR "Forced ADJ4 migrant*" OR "Independent child migrant*" OR "Independent migrant child*") AND (Child* OR Kid* OR "Young person" OR "Young people" OR Youth OR Adolescent* OR Minor* OR Teenage*) AND (Resilien*)	Anthropology Plus, British Education Index, Child Development & Adolescent Studies, Cumulative Index to Nursing and Allied Health Literature (CINAHL), EBSCOhost OpenDissertations, Education Abstracts, Education Administration Abstracts, Family & Society Studies Worldwide, Teacher Reference Center	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: All fields	Journal articles: 44 Theses and dissertations: 8 Total: 52
Elsevier SCOPUS	1. 30 Apr 2020 2. 30 Dec 2020	ALL((Unaccompanied) AND (Refugee* OR Asylum-seek* OR "Asylum seek*" OR "Displaced person" OR "Forced ADJ4 migrant*" OR "Independent child migrant*" OR "Independent migrant child*") AND (Child* OR Kid* OR "Young person" OR "Young people" OR Youth OR Adolescent* OR Minor* OR Teenage*) AND (Resilien*))	All search results	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: ALL	Journal articles: 917 Theses and dissertations: 0 Total: 917
Google Scholar	1. 30 Apr 2020 2. 30 Dec 2020	(Unaccompanied) AND (Resilien*) AND (Refugee* OR Asylum-seek* OR "Asylum seek*" OR "Displaced person" OR "Forced ADJ4 migrant*" OR "Independent child migrant*" OR "Independent migrant child*") (Unaccompanied) AND (Resilien*) AND (Child* OR Kid* OR "Young person" OR	First 200 search results for each combination	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: Anywhere in the article	Journal articles: 200 Theses and dissertations: 0 Total: 200

		"Young people" OR Youth OR Adolescent* OR Minor* OR Teenage*)			
Informit	1. 30 Apr 2020 2. 30 Dec 2020	(Unaccompanied) AND (Refugee* OR Asylum-seek* OR "Asylum seek*" OR "Displaced person" OR "Forced ADJ4 migrant*" OR "Independent child migrant*" OR "Independent migrant child*") AND (Child* OR Kid* OR "Young person" OR "Young people" OR Youth OR Adolescent* OR Minor* OR Teenage*) AND (Resilien*)	Indigenous Collection, AGIS Plus Text	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: Anywhere	Journal articles: 22 Theses and dissertations: 0 Total: 22
Microsoft Academic	1. 30 Apr 2020 2. 30 Dec 2020	(Unaccompanied) AND (Resilience OR Resiliency OR Resilient) AND (Refugee* OR Asylum-seek* OR "Asylum seek*" OR "Displaced person" OR "Forced ADJ4 migrant*" OR "Independent child migrant*" OR "Independent migrant child*") AND (Child* OR Kid* OR "Young person" OR "Young people" OR Youth OR Adolescent* OR Minor* OR Teenage*)	All search results	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: Anywhere in the article	Journal articles: 29 Theses and dissertations: 0 Total: 29
ProQuest	1. 30 Apr 2020 2. 30 Dec 2020	(Unaccompanied) AND (Refugee* OR Asylum-seek* OR "Asylum seek*" OR "Displaced person" OR "Forced ADJ4 migrant*" OR "Independent child migrant*" OR "Independent migrant child*") AND (Child* OR Kid* OR "Young person" OR "Young people" OR Youth OR Adolescent* OR Minor* OR Teenage*) AND (Resilien*)	Applied Social Sciences Index & Abstracts (ASSIA), Criminal Justice Database, Education Database, Education Resources Information Center (ERIC), International Bibliography of the Social Sciences (IBSS), National Criminal Justice Reference Service (NCJRS), Social Science Database, Sociological Abstracts, Sociology Database, ProQuest Dissertations & Theses Global	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: Anywhere	Journal articles: 321 Theses and dissertations: 1561 Total: 1882

PubMed Central	1. 30 Apr 2020 2. 30 Dec 2020	(((Unaccompanied) AND (Refugee* OR Asylum-seek* OR "Asylum seek*" OR "Displaced person" OR "Forced ADJ4 migrant*" OR "Independent child migrant*" OR "Independent migrant child*")) AND (Child* OR Kid* OR "Young person" OR "Young people" OR Youth OR Adolescent* OR Minor* OR Teenage*)) AND Resilien*	All search results	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: All fields	Journal articles: 173 Theses and dissertations: 0 Total: 173
Ovid	1. 30 Apr 2020 2. 30 Dec 2020	(Unaccompanied and Resilien* and (Refugee* or Asylum-seek* or Asylum seek* or Displaced person or Forced migrant* or Independent child migrant* or Independent migrant child*) and (Child* or Kid* or Young person or Young people or Youth or Adolescent* or Minor* or Teenage*)).af.	PsycARTICLES, AMED, Embase, Global Health, MEDLINE, PsycINFO	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: All fields	Journal articles: 397 Theses and dissertations: 0 Total: 397
SAGE Journals	1. 30 Apr 2020 2. 30 Dec 2020	[All unaccompanied] AND [[All refugee*] OR [All asylum-seek*] OR [All "asylum seek*"] OR [All "displaced person"] OR [All "forced adj4 migrant*"] OR [All "independent child migrant*"] OR [All "independent migrant child*"]] AND [[All child*] OR [All kid*] OR [All "young person"] OR [All "young people"] OR [All youth] OR [All adolescent*] OR [All minor*] OR [All teenage*]] AND [All resilien*]	All search results	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: Anywhere	Journal articles: 180 Theses and dissertations: 0 Total: 180
Taylor & Francis Online	1. 30 Apr 2020 2. 30 Dec 2020	[All: unaccompanied] AND [[All: refugee*] OR [All: asylum-seek*] OR [All: "asylum seek*"] OR [All: "displaced person"] OR [All: "forced adj4 migrant*"] OR [All: "independent child	All search results	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020)	Journal articles: 274 Theses and dissertations: 0 Total: 274

		migrant*"] OR [All: "independent migrant child*"]] AND [[All: child*] OR [All: kid*] OR [All: "young person"] OR [All: "young people"] OR [All: youth] OR [All: adolescent*] OR [All: minor*] OR [All: teenage*]] AND [All: resilien*]		Search within: Anywhere	
Web of Science	1. 30 Apr 2020 2. 30 Dec 2020	TS=(Unaccompanied) AND TS=(Refugee* OR Asylum-seek* OR "Asylum seek*" OR "Displaced person" OR "Forced ADJ4 migrant*" OR "Independent child migrant*" OR "Independent migrant child*") AND TS=(Child* OR Kid* OR "Young person" OR "Young people" OR Youth OR Adolescent* OR Minor* OR Teenage*) AND TS=(Resilien*)	Arts & Humanities Citation Index, Book Citation Index, Conference Proceedings Citation Index, Emerging Sources Citation Index, Science Citation Index Expanded, Social Sciences Citation Index	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search within: Topic	Journal articles: 78 Theses and dissertations: 0 Total: 78
Wiley Online Library	1. 30 Apr 2020 2. 30 Dec 2020	(Unaccompanied) AND (Refugee* OR Asylum-seek* OR “Asylum seek*” OR “Displaced person” OR “Forced ADJ4 migrant*” OR “Independent child migrant*” OR “Independent migrant child*”) AND (Child* OR Kid* OR “Young person” OR “Young people” OR Youth OR Adolescent* OR Minor* OR Teenage*) AND (Resilien*)	All search results	Languages: All Time frame: 1. 2000 – current (30 Apr 2020) 2. 2020 – current (30 Dec 2020) Search: Anywhere	Journal articles: 235 Theses and dissertations: 0 Total: 235
Manual search	1. 30 Dec 2020	N/A	All reference lists of eligible studies	Time frame: 1. 2000 – current (30 Dec 2020)	Journal articles: 12 Theses and dissertations: 0 Total: 12

Appendix B2. *Results of the Critical Appraisal Process*.

QUAN: CASP Checklist for Cohort Studies	1	2	3	4	5a	5b	6a	6b	7	8	9	10	11	12
Abunimah & Blower (2010)	Y	Y	Y	Y	N	N	O	O	O	O	Y	Y	Y	O
Aytar & Brunnberg (2016)	Y	Y	Y	N	N	N	Y	Y	O	O	N	N	Y	O
Çelikaksoy & Wadensjö (2019)	Y	Y	Y	Y	N	N	Y	Y	O	O	Y	Y	Y	O
Crea, Hasson, Evans, Cardoso & Underwood (2017)	Y	Y	Y	Y	N	N	O	O	O	O	Y	Y	Y	O
Dogget (2012)	Y	Y	Y	N	N	N	O	O	O	O	N	N	Y	O
Evans, Pardue-Kim, Crea, Coleman, Diebold & Underwood (2018)	Y	Y	Y	Y	N	N	O	O	O	O	Y	Y	Y	O
Dogget (2012)	Y	Y	Y	N	N	N	Y	Y	O	O	Y	N	Y	O
O'Higgins (2018)	Y	Y	Y	Y	N	N	O	O	O	O	Y	N	Y	O

Note: Y = Yes; N = No; O = N/A (7, 8, and 12 are open-ended questions; 6a and 6b only applies if follow-up was intended)

Questions:

1) Did the study address a clearly focused issue?

Explanation: Is it focused with regards to the population studied? Is it focused with regards to the risk factors studied? Is it focused with regards to the outcomes considered? Is it clear whether the study tried to detect a beneficial or harmful effect? and the outcomes considered?

2) Was the cohort recruited in an acceptable way?

Explanation: Might there be selection bias that might compromise the generalizability of the findings? Was the cohort representative of a defined population? Was there something special about the cohort? Was everybody included in the study who should have been?

3) Was the exposure accurately measured to minimize bias?

Explanation: Did the study use subjective or objective measurements with regards to the exposure studied? Do the measurements truly reflect the exposure accurately? Have they been validated? Were all the subjects classified into exposure groups using the same procedure? Were all the subjects classified into exposure groups using the same procedure?

4) Was the outcome accurately measured to minimize bias?

Explanation: Did the study use subjective or objective measurements with regards to the outcomes studied? Do the measurements truly reflect the outcomes accurately? Have they been validated? Has a reliable system been established for detecting all the cases for measuring outcome occurrence? Were the measurement methods similar in the different groups?

5a) Have the authors identified all important confounding factors?

Explanation: What are the most important factors? What are factors that the study might have missed?

5b) Have they taken into account the confounding factors in the design/and or analysis?

Explanation: What restriction exist in study design? What techniques (e.g., modelling, stratified, regression, sensitivity analysis) have been used to correct, control, or adjust for confounding factors?

6a) Was the follow-up of subjects complete enough?

6b) Was the follow-up of subjects long enough?

Explanation: Have the good or bad effects had long enough to reveal themselves? Would the persons that are lost to follow-up may have different outcomes than those available for assessment? In an open or dynamic cohort, was there anything special about the outcome of the people leaving, or the exposure of the people entering the cohort?

7) What are the results of this study?

8) How precise are the results?

Explanation: What is the range of the confidence intervals?

9) Do you believe the results?

Explanation: Is the big effect is hard to ignore? Can it be due to bias, chance, or confounding? Are the design and methods of the study sufficiently flawed to make the results unreliable?

10) Can the results be applied to the local population?

Explanation: Did the study have the appropriate method to answer this question? Could the subjects covered in this study be sufficiently different from the population of study to cause concern? Is the local setting is likely to differ much from that of the study? Are the local benefits and harms quantifiable?

11) Do the results fit with other available evidence?

12) What are the implications of the study for practice?

QUAL: CASP Checklist for Qualitative Studies	1	2	3	4	5	6	7	8	9	10
Abunimah & Blower (2010)	Y	Y	Y	Y	Y	N	N	Y	Y	O
Auger-Voyer, Montero-Sieburth & Peres (2014)	Y	Y	Y	Y	Y	Y	Y	N	N	O
Aytar & Brunnberg (2016)	Y	Y	Y	Y	Y	N	Y	N	N	O
Bitzi & Landolt (2017)	Y	Y	Y	N	Y	Y	Y	N	N	O
Dogget (2012)	Y	Y	Y	Y	Y	N	Y	N	Y	O
Farmbrough (2014)	Y	Y	Y	Y	Y	N	Y	N	Y	O
Ghaeminia, Ghorashi & Crul (2017)	Y	Y	Y	Y	Y	Y	N	N	N	O
Lee (2012)	Y	Y	Y	N	Y	N	Y	Y	Y	O
Luster, Qin, Bates, Rana & Lee (2010)	Y	Y	N	N	Y	N	N	Y	Y	O
Macciomei (2017)	Y	Y	N	Y	Y	N	Y	Y	Y	O
Pastoor (2017)	Y	Y	Y	Y	Y	N	Y	N	N	O
Peña, Jones, Orange, Simieou and Márquez (2018)	Y	Y	Y	Y	Y	Y	Y	Y	Y	O
Rana, Qin, Bates, Luster & Saltarelli (2011)	Y	Y	N	N	Y	N	N	Y	Y	O
Rania, Migliorini, Scalvo, Cardinali & Lotti (2014)	Y	Y	Y	N	Y	N	Y	Y	Y	O

Note: Y = Yes; N = No; O = N/A (10 is an open-ended question)

Questions:

1) Was there a clear statement of the aims of the research?

Explanation: What was the goal of the research? Why was it thought important? Why was it relevant?

2) Is qualitative methodology appropriate?

Explanation: Does the research seek to interpret or illuminate the actions and/or subjective experiences of research participants? Is qualitative research the right methodology for addressing the research goal?

3) Was the research design appropriate to address the aims of the research?

Explanation: Did the study justify the research design? Did the study discuss how the method was decided?

4) Was the recruitment strategy appropriate to the aims of the research?

Explanation: Did the study explain how the participants were selected? Did the study explain the participants selected were the most appropriate to provide access to the type of knowledge sought by the study? Were there any discussions around recruitment (e.g., why some people chose not to take part)?

5) Was the data collected in a way that addressed the research issue?

Explanation: Was the setting for the data collection justified? Is it clear how data was collected (e.g., focus group, semi-structured interview, etc…)? If the study justified the methods chosen? Did the study make the methods explicit (e.g., for interview method, is there an indication of how interviews are conducted, or did they use a topic guide)? Were the methods modified during the study? If so, did the study explain how and why? Is the form of data clear (e.g. tape recordings, video material, notes, etc.)? Did the study discuss saturation of data?

6) Has the relationship between researcher and participants been adequately considered?

Explanation: Did the authors critically examine their own role, potential bias and influence during (a) formulation of the research questions, and (b) data collection, including sample recruitment and choice of location? How do the authors respond to events during the study and whether they considered the implications of any changes in the research design?

7) Have ethical issues been taken into consideration?

Explanation: Are there sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained? Did the authors discuss issues raised by the study (e.g., issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)? Was approval has been sought from the appropriate ethics committee?

8) Was the data analysis sufficiently rigorous?

Explanation: Is there an in-depth description of the analysis process? If thematic analysis is used, is it clear how the categories/themes were derived from the data? Did the authors explain how the data presented were selected from the original sample to demonstrate the analysis process? Is the data presented sufficient to support the findings? To what extent was contradictory data taken into account? Did the authors critically examine their own role, potential bias and influence during analysis and selection of data for presentation?

9) Is there a clear statement of findings?

Explanation: Are the findings explicit? Is there adequate discussion of the evidence, both for and against the authors' arguments? Did the authors discuss the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst)? Were the findings discussed in relation to the original research question?

10) How valuable is the research?

Explanation: Did the authors discuss the contribution the study makes to existing knowledge or understanding (e.g., do they consider the findings in relation to current practice or policy, or relevant research-based literature)? Did the study identify new areas where research is necessary? Did the authors discuss whether or how the findings can be transferred to other populations or considered other ways the research may be used?

Appendix B3. *Results of the Confidence in Cumulative Evidence Assessment*.

Summary of review finding	Studies contributing to the review finding	Methodological limitations	Coherence	Adequacy of data	Relevance	GRADE-CERQual assessment of confidence in the evidence	Explanation of GRADE-CERQual assessment
The Child							
Higher Age at Admission to Care as Risk Factor	Crea et al. (2017), O'Higgins (2018)	Very minor concerns (Two studies with very minor methodological limitations)	Moderate concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Two studies with rich data)	Moderate concerns (Two studies from two countries)	Medium confidence	Very minor concerns about methodological limitations, moderate concerns about coherence, minor concerns about adequacy of data, moderate concerns about relevance
Higher Age at Admission to School as Risk Factor	Auger-Voyer et al. (2014), Bitzi & Landolt (2017), Çelikaksoy & Wadensjö (2019)	Very minor concerns (Two studies with very minor and one study with minor methodological limitations)	Minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Three studies with rich data)	Minor concerns (Three studies from three countries)	Medium confidence	Very minor concerns about methodological limitations, minor concerns about coherence, minor concerns about adequacy of data, minor concerns about relevance
Early Motherhood as Risk Factor	Abunimah & Blower (2010), Çelikaksoy & Wadensjö (2019), Crea et al. (2017),	Very minor concerns (One study with no concerns, two studies with very minor and one	Very minor concerns about coherence about the fit between the data from primary studies	Very minor concerns (Four studies with rich data)	Moderate concerns (Four studies from two countries)	High confidence	Very minor concerns about methodological limitations, very minor concerns about coherence,

	Rana et al. (2011)	study with moderate methodological limitations)	and the review finding				very minor concerns about adequacy of data, moderate concerns about relevance
Limited or No Prior Education as Risk Factor	Auger-Voyer et al. (2014), Dogget (2012), Luster et al. (2010), Rana et al. (2011)	Minor concerns (Two studies with very minor and two studies with moderate methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Four studies with moderately rich data)	Minor concerns (Four studies from three countries)	Medium confidence	Minor concerns about methodological limitations, very minor concerns about coherence, minor concerns about adequacy of data, minor concerns about relevance
Prior Quality Education as Resilience Factor	Bitzi & Landolt (2017), Ghaeminia et al. (2017), Luster et al. (2010), Rana et al. (2011)	Minor concerns (Two studies with minor and two studies with moderate methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Four studies with moderately rich data)	Minor concerns (Four studies from three countries)	Medium confidence	Minor concerns about methodological limitations, very minor concerns about coherence, minor concerns about adequacy of data, minor concerns about relevance
Poor Physical and Mental Health as Risk Factor	Abunimah & Blower (2010), Dogget (2012), Luster et al. (2010), O'Higgins (2018), Rana et al. (2011)	Minor concerns (Three studies with very minor and two studies with moderate methodological limitations)	No concerns about coherence about the fit between the data from primary studies and the review finding	Very minor concerns (Five studies with moderately rich data)	Minor concerns (Five studies from three countries)	High confidence	Minor concerns about methodological limitations, no concerns about coherence, very minor concerns about adequacy of data, minor concerns about relevance

Note: Review findings with very high, high, and moderate confidence rating are included in the main manuscript. Review findings with low confidence rating have not been included in the main manuscript

Summary of review finding	Studies contributing to the review finding	Methodological limitations	Coherence	Adequacy of data	Relevance	GRADE-CERQual assessment of confidence in the evidence	Explanation of GRADE-CERQual assessment
			Microsystem/Mesosystem				
Supportive Biological Parents as Resilience Factor	Aytar & Brunnberg (2016), Ghaeminia et al. (2017), Peña et al. (2018), Rana et al. (2011)	Minor concerns (One study with no concerns, two studies with minor, and one study with moderate methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Four studies with moderately rich data)	Minor concerns (Four studies from three countries)	Medium confidence	Minor concerns about methodological limitations, very minor concerns about coherence, minor concerns about adequacy of data, minor concerns about relevance
Quality Foster Care as Resilience Factor	Aytar & Brunnberg (2016), Crea et al. (2017), Evans et al. (2018), O'Higgins (2018)	Very minor concerns (Three studies with very minor and one study with minor methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Very minor concerns (Four studies with rich data)	Minor concerns (Four studies from three countries)	High confidence	Very minor concerns about methodological limitations, very minor concerns about coherence, very minor concerns about adequacy of data, minor concerns about relevance
Supportive Foster Parents as Resilience Factor	Ghaeminia et al. (2017), Peña et al. (2018), Rana et al. (2011)	Minor concerns (One study with no concerns, one study with minor, and one study with moderate	Minor concerns about coherence about the fit between the data from primary studies	Moderate concerns (Three studies with moderately rich data)	Moderate concerns (Three studies from two countries)	Medium confidence	Minor concerns about methodological limitations, minor concerns about coherence, moderate concerns

		methodological limitations)	and the review finding				about adequacy of data, moderate concerns about relevance
Quality Residential Care as Resilience Factor	Auger-Voyer et al. (2014), Ghaeminia et al. (2017), Pastoor (2017)	Minor concerns (One study with very minor and two studies with minor methodological limitations)	Minor concerns about coherence about the fit between the data from primary studies and the review finding	Moderate concerns (Three studies with moderately rich data)	Minor concerns (Three studies from three countries)	Medium confidence	Minor concerns about methodological limitations, minor concerns about coherence, moderate concerns about adequacy of data, minor concerns about relevance
Poor Residential Care as Risk Factor	Ghaeminia et al. (2017), O'Higgins (2018), Pastoor (2017)	Minor concerns (One study with very minor and two studies with minor methodological limitations)	Minor concerns about coherence about the fit between the data from primary studies and the review finding	Moderate concerns (Three studies with moderately rich data)	Minor concerns (Three studies from three countries)	Medium confidence	Minor concerns about methodological limitations, minor concerns about coherence, moderate concerns about adequacy of data, minor concerns about relevance
Independent Accommodation	Abunimah & Blower (2010), Pastoor (2017)	Very minor concerns (One study with very minor and one study with minor methodological limitations)	Moderate concerns about coherence about the fit between the data from primary studies and the review finding	Moderate concerns (Two studies with rich data)	Moderate concerns (Two studies from two countries)	Low confidence	Very minor concerns about methodological limitations, moderate concerns about coherence, moderate concerns about adequacy of data, moderate concerns about relevance

Strong School Placement as Resilience Factor	Bitzi & Landolt (2017), Dogget (2012), O'Higgins (2018), Pastoor (2017)	Minor concerns (Two studies with very minor and two studies with minor methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Four studies with moderately rich data)	Minor concerns (Four studies from three countries)	Medium confidence	Minor concerns about methodological limitations, very minor concerns about coherence, minor concerns about adequacy of data, minor concerns about relevance
Poor Class Placement as Risk Factor	Auger-Voyer et al. (2014), Bitzi & Landolt (2017), Rana et al. (2011)	Minor concerns (One study with very minor, one study with minor, and one study with moderate methodological limitations)	Minor concerns about coherence about the fit between the data from primary studies and the review finding	Moderate concerns (Three studies with moderately rich data)	Minor concerns (Three studies from three countries)	Medium confidence	Minor concerns about methodological limitations, minor concerns about coherence, moderate concerns about adequacy of data, minor concerns about relevance
Disruptive Classmates as Risk Factor	Auger-Voyer et al. (2014), Bitzi & Landolt (2017), Dogget (2012), Ghaeminia et al. (2017), Rana et al. (2011)	Minor concerns (Two studies with very minor, two studies with minor, and one study with moderate methodological limitations)	No concerns about coherence about the fit between the data from primary studies and the review finding	Very minor concerns (Five studies with moderately rich data)	No concerns (Five studies from five countries)	Very high confidence	Minor concerns about methodological limitations, no concerns about coherence, very minor concerns about adequacy of data, no concerns about relevance
Supportive Classmates as Resilience Factor	Dogget (2012), Farmbrough (2014), Pastoor (2017), Rana et al. (2011)	Minor concerns (Two studies with very minor, one study with minor, and one study with moderate methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Four studies with moderately rich data)	Minor concerns (Four studies from three countries)	Medium confidence	Minor concerns about methodological limitations, very minor concerns about coherence, minor concerns about adequacy of

							data, minor concerns about relevance
Supportive Teachers as Resilience Factor	Farmbrough (2014), Ghaeminia et al. (2017), Luster et al. (2010), Peña et al. (2018), Rana et al. (2011)	Minor concerns (One study with no concerns, one study with very minor, one study with minor, and two studies with moderate methodological limitations)	No concerns about coherence about the fit between the data from primary studies and the review finding	Very minor concerns (Five studies with moderately rich data)	Minor concerns (Five studies from three countries)	High confidence	Minor concerns about methodological limitations, no concerns about coherence, very minor concerns about adequacy of data, minor concerns about relevance
Unsupportive Teachers as Risk Factor	Dogget (2012), Ghaeminia et al. (2017), Luster et al. (2010), Rana et al. (2011)	Minor concerns (One study with very minor, one study with minor, and two studies with moderate methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Four studies with moderately rich data)	Minor concerns (Four studies from three countries)	Medium confidence	Minor concerns about methodological limitations, very minor concerns about coherence, minor concerns about adequacy of data, minor concerns about relevance
Supportive Friends as Resilience Factor	Ghaeminia et al. (2017), Pastoor (2017), Rana et al. (2011)	Minor concerns (Two studies with minor, and one study with moderate methodological limitations)	Minor concerns about coherence about the fit between the data from primary studies and the review finding	Moderate concerns (Three studies with moderately rich data)	Minor concerns (Three studies from three countries)	Medium confidence	Minor concerns about methodological limitations, minor concerns about coherence, moderate concerns about adequacy of data, minor concerns about relevance
Educational Technology	Farmbrough (2014), Rana et al. (2011)	Minor concerns (One study with very minor, and one study with moderate	Moderate concerns about coherence about the fit between the data from	Serious concerns (Two studies with moderately rich data)	Moderate concerns (Two studies from two countries)	Low confidence	Minor concerns about methodological limitations, moderate concerns

	methodological limitations)	primary studies and the review finding		about coherence, serious concerns about adequacy of data, moderate concerns about relevance

Note: Review findings with very high, high, and moderate confidence rating are included in the main manuscript. Review findings with low confidence rating have not been included in the main manuscript

Summary of review finding	Studies contributing to the review finding	Methodological limitations	Coherence	Adequacy of data	Relevance	GRADE-CERQual assessment of confidence in the evidence	Explanation of GRADE-CERQual assessment
Exosystem							
Financial Restraints as Risk Factor	Abunimah & Blower (2010), Çelikaksoy & Wadensjö (2019), Luster et al. (2010), Pastoor (2017), Rana et al. (2011)	Minor concerns (Two studies with very minor, one study with minor, and two studies with moderate methodological limitations)	No concerns about coherence about the fit between the data from primary studies and the review finding	Very minor concerns (Five studies with moderately rich data)	No concerns (Five studies from five countries)	Very high confidence	Minor concerns about methodological limitations, no concerns about coherence, very minor concerns about adequacy of data, no concerns about relevance
Access to Financial Support as Resilience Factor	Ghaeminia et al. (2017), Luster et al. (2010), Rana et al. (2011), Rania et al. (2014)	Minor concerns (One study with very minor, one study with minor, and two studies with moderate methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Four studies with moderately rich data)	Minor concerns (Four studies from three countries)	Medium confidence	Minor concerns about methodological limitations, very minor concerns about coherence, minor concerns about adequacy of data, minor concerns about relevance
Unemployment as Risk Factor	Auger-Voyer et al. (2014), Bitzi & Landolt (2017), Luster et al. (2010)	Minor concerns (Two studies with very minor, one study with minor, and one study with moderate methodological limitations)	Minor concerns about coherence about the fit between the data from primary studies and the review finding	Moderate concerns (Three studies with moderately rich data)	Very minor concerns (Three studies from four countries)	Medium confidence	Minor concerns about methodological limitations, minor concerns about coherence, moderate concerns about adequacy of

							data, very minor concerns about relevance
Employment as Resilience Factor	Çelikaksoy & Wadensjö (2019), Dogget (2012), Ghaeminia et al. (2017), Luster et al. (2010), Pastoor (2017)	Minor concerns (Two studies with very minor, two studies with minor, and one study with moderate methodological limitations)	No concerns about coherence about the fit between the data from primary studies and the review finding	Very minor concerns (Five studies with moderately rich data)	No concerns (Five studies from five countries)	Very high confidence	Minor concerns about methodological limitations, no concerns about coherence, very minor concerns about adequacy of data, no concerns about relevance

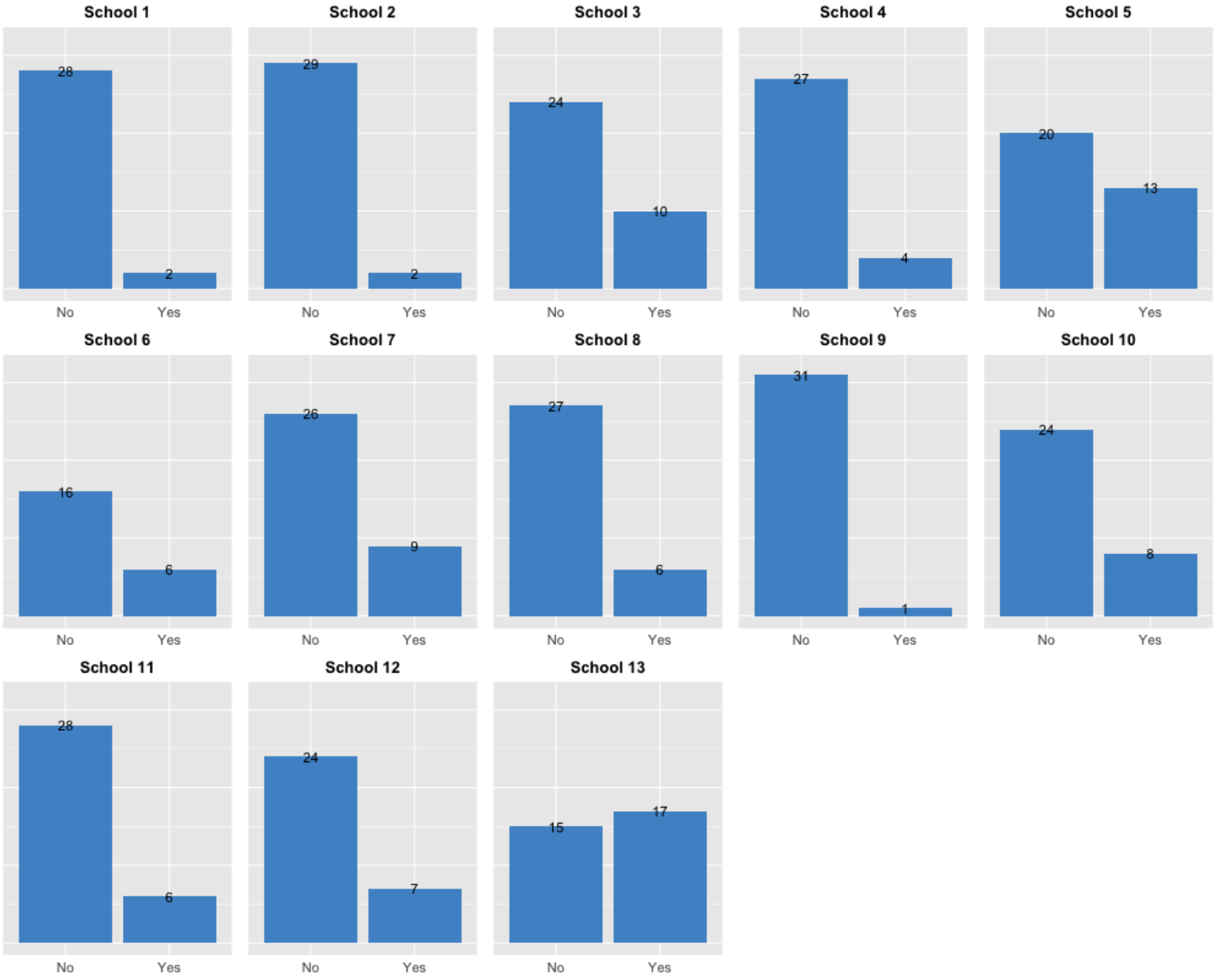
Note: Review findings with very high, high, and moderate confidence rating are included in the main manuscript. Review findings with low confidence rating have not been included in the main manuscript

Summary of review finding	Studies contributing to the review finding	Methodological limitations	Coherence	Adequacy of data	Relevance	GRADE-CERQual assessment of confidence in the evidence	Explanation of GRADE-CERQual assessment
Macrosystem							
Racism and Discrimination as Risk Factor	Farmbrough (2014), Ghaeminia et al. (2017), Pastoor (2017), Rana et al. (2011)	Minor concerns (One study with very minor, two studies with minor, and one study with moderate methodological limitations)	Very minor concerns about coherence about the fit between the data from primary studies and the review finding	Minor concerns (Four studies with moderately rich data)	Very minor concerns (Four studies from four countries)	High confidence	Minor concerns about methodological limitations, very minor concerns about coherence, minor concerns about adequacy of data, very minor concerns about relevance
Harmful Asylum Policies as Risk Factor	Abunimah & Blower (2010), Crea et al. (2017), Ghaeminia et al. (2017), Lee (2012), Macciomei (2017)	Very minor concerns (Four studies with very minor, and one study with minor methodological limitations)	No concerns about coherence about the fit between the data from primary studies and the review finding	No concerns (Five studies with rich data)	Very minor concerns (Five studies from four countries)	Very high confidence	Very minor concerns about methodological limitations, no concerns about coherence, no concerns about adequacy of data, very minor concerns about relevance
Community Engagement as Resilience Factor	Auger-Voyer et al. (2014), Ghaeminia et al. (2017), Pastoor (2017), Lee (2012),	Minor concerns (Two studies with very minor, two studies with minor, and one study with moderate	No concerns about coherence about the fit between the data from primary studies	Very minor concerns (Five studies with moderately rich data)	Very minor concerns (Five studies from four countries)	High confidence	Minor concerns about methodological limitations, no concerns about coherence, very minor concerns

	Luster et al. (2010)	methodological limitations)	and the review finding				about adequacy of data, very minor concerns about relevance
Refugee and Migrant Support as Resilience Factor	Aytar & Brunnberg (2016), Ghaeminia et al. (2017), Rania et al. (2014), Luster et al. (2010), Rana et al. (2011)	Minor concerns (One study with very minor, two studies with minor, and two studies with moderate methodological limitations)	No concerns about coherence about the fit between the data from primary studies and the review finding	Very minor concerns (Five studies with moderately rich data)	Very minor concerns (Five studies from four countries)	High confidence	Minor concerns about methodological limitations, no concerns about coherence, very minor concerns about adequacy of data, very minor concerns about relevance

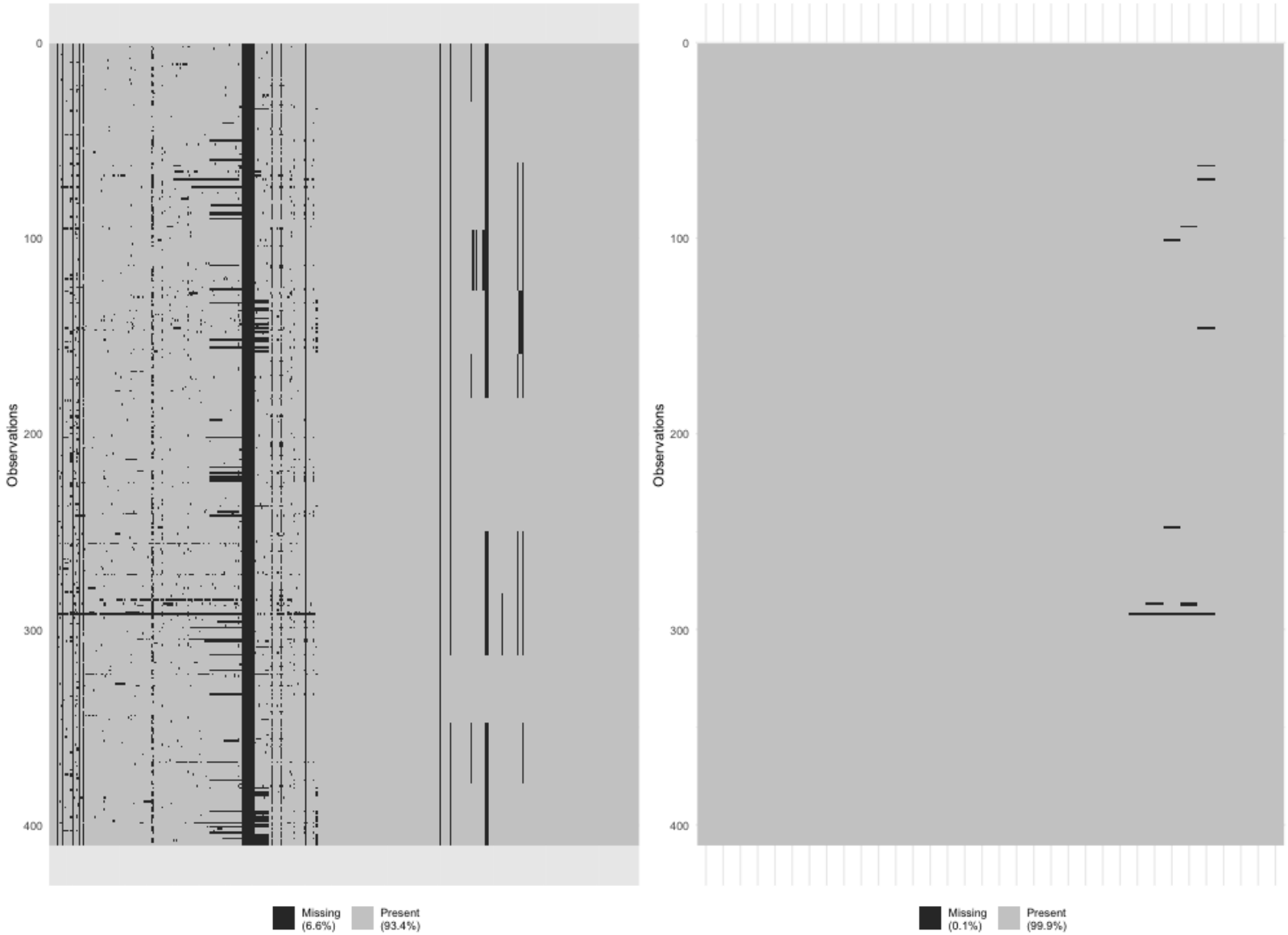
Note: Review findings with very high, high, and moderate confidence rating are included in the main manuscript. Review findings with low confidence rating have not been included in the main manuscript

Appendix C1. *Distribution of the number of UASC students and non-UASC students by school.*

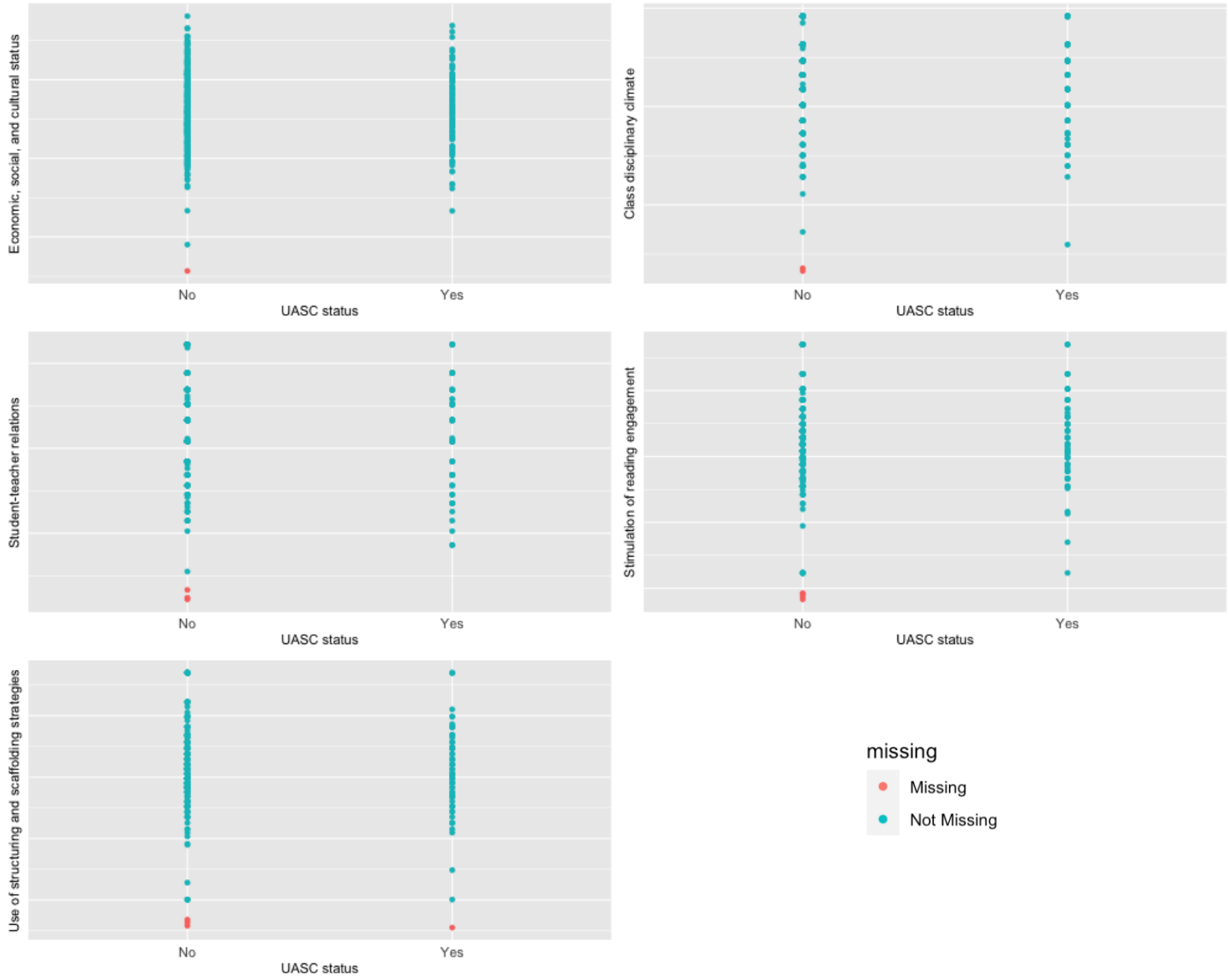


Appendix to dissertation, 'Educational resilience of unaccompanied and separated children' by Yousef Khalifa Aleghfeli, Department of Education, University of Oxford

Appendix C2. *Missing data patterns in the UNRWA dataset (left) and among the variables of study (right).*



Appendix C3. *Missing data patterns among the variables of with missing data by UASC status.*



Appendix C4. *R Syntax.*

```
# Set working directory
setwd("/Users/~")

## Load Packages ####
library("intsvy")
library("EdSurvey")
library("tidyverse")
library("dplyr")
library("devtools")
library("openxlsx")
library("lattice")
library("gridExtra")
library("flextable")
library("reshape2")
library("naniar")
library("ggplot2")

## Load files ####
install_github("pbiecek/PISA2009lite")
data("student2009dict", package = "PISA2009lite")
data("student2009", package = "PISA2009lite")
data("school2009dict", package = "PISA2009lite")
data("school2009", package = "PISA2009lite")
student <- subset(student2009, STRATUM == 40003) #Student dataset
school <- subset(school2009, STRATUM == 40003) #School dataset
rm(school2009,student2009,school2009dict,student2009dict)
unrwa <- merge(student,school,by="SCHOOLID") #Main dataset
rm(school, student)
names(unrwa)[names(unrwa) == "CNT.x"] <- "CNT"
names(unrwa)[names(unrwa) == "COUNTRY.x"] <- "COUNTRY"
names(unrwa)[names(unrwa) == "OECD.x"] <- "OECD"
names(unrwa)[names(unrwa) == "SUBNATIO.x"] <- "SUBNATIO"
names(unrwa)[names(unrwa) == "STRATUM.x"] <- "STRATUM"
names(unrwa)[names(unrwa) == "ST04Q01"] <- "GENDER"
```

```
unrwa$CNT.y <- NULL
unrwa$COUNTRY.y <- NULL
unrwa$OECD.y <- NULL
unrwa$SUBNATIO.y <- NULL
unrwa$STRATUM.y <- NULL
unrwa$uasc <- as.factor(ifelse(unrwa$ST08Q01 == "Yes" | unrwa$ST08Q02 == "Yes", 0, 1)) # (0) Accompanied; (1) Unaccompanied
unrwa$uasc[is.na(unrwa$uasc)] <- 0
unrwa$GENDER <- as.factor(ifelse(unrwa$GENDER == "Female", 1, 0)) # (1) Female; (0) Male
unrwa$SELSCH <- as.factor(ifelse(unrwa$SELSCH == " Two factors are never considered", 0, 1)) # (0) School is not academically selective; (1) School is academically selective
unrwa$ABGROUP <- as.factor(ifelse(unrwa$ABGROUP == "Not for any subjects", 0, 1)) # (0) School has no ability grouping; (1) School has ability grouping
table(unrwa$uasc) #to retrieve sample breakdown
unrwa1 <- unrwa

# Step 1: Descriptive Statistics ####

## 1.1: Preparing the data ####
READ <- na.omit(pisa.mean.pv("READ", by = "uasc", data = unrwa1))
MATH <- na.omit(pisa.mean.pv("MATH", by = "uasc", data = unrwa1))
SCIE <- na.omit(pisa.mean.pv("SCIE", by = "uasc", data = unrwa1))
UASC <- na.omit(pisa.mean("STIDSTD", by = "uasc", data = unrwa1))
AGE <- na.omit(pisa.mean("AGE", by="uasc", data = unrwa1))
GENDER <- na.omit(pisa.table("GENDER", by="uasc", data = unrwa1))
ESCS <- na.omit(pisa.mean("ESCS", by = "uasc", data = unrwa1))
DISCLIMA <- na.omit(pisa.mean("DISCLIMA", by = "uasc", data = unrwa1))
STUDREL <- na.omit(pisa.mean("STUDREL", by = "uasc", data = unrwa1))
STIMREAD <- na.omit(pisa.mean("STIMREAD", by = "uasc", data = unrwa1))
STRSTRAT <- na.omit(pisa.mean("STRSTRAT", by = "uasc", data = unrwa1))
SELSCH <- na.omit(pisa.table("SELSCH", by="uasc", data = unrwa1))
ABGROUP <- na.omit(pisa.table("ABGROUP", by="uasc", data = unrwa1))
STUDBEHA <- na.omit(pisa.mean("STUDBEHA", by = "uasc", data = unrwa1))
TEACBEHA <- na.omit(pisa.mean("TEACBEHA", by = "uasc", data = unrwa1))
Var <- c("READ", "MATH", "SCIE", "AGE", "GENDER (0)", "GENDER (1)", "ESCS", "DISCLIMA", "STUDREL", "STIMREAD", "STRSTRAT", "SELSCH (0)", "SELSCH (1)", "ABGROUP (0)", "ABGROUP (1)", "STUDBEHA", "TEACBEHA")
```

```
UnaccompaniedMean <- c(READ$`Mean`[2], MATH$`Mean`[2], SCIE$`Mean`[2], AGE$`Mean`[2], GENDER$`Freq`[3], GEN
DER$`Freq`[4], ESCS$`Mean`[2], DISCLIMA$`Mean`[2], STUDREL$`Mean`[2], STIMREAD$`Mean`[2], STRSTRAT$`Mean`[2
], SELSCH$`Freq`[3], SELSCH$`Freq`[4], ABGROUP$`Freq`[3], ABGROUP$`Freq`[4], STUDBEHA$`Mean`[2], TEACBEHA$`
Mean`[2])
UnaccompaniedSD <- c(READ$`SD`[2], MATH$`SD`[2], SCIE$`SD`[2], AGE$`SD`[2], GENDER$`Percentage`[3], GENDER$
`Percentage`[4], ESCS$`SD`[2], DISCLIMA$`SD`[2], STUDREL$`SD`[2], STIMREAD$`SD`[2], STRSTRAT$`SD`[2], SELSC
H$`Percentage`[3], SELSCH$`Percentage`[4], ABGROUP$`Percentage`[3], ABGROUP$`Percentage`[4], STUDBEHA$`SD`[
2], TEACBEHA$`SD`[2])
AccompaniedMean <- c(READ$`Mean`[1], MATH$`Mean`[1], SCIE$`Mean`[1], AGE$`Mean`[1], GENDER$`Freq`[1], GENDE
R$`Freq`[2], ESCS$`Mean`[1], DISCLIMA$`Mean`[1], STUDREL$`Mean`[1], STIMREAD$`Mean`[1], STRSTRAT$`Mean`[1],
SELSCH$`Freq`[1], SELSCH$`Freq`[2], ABGROUP$`Freq`[1], ABGROUP$`Freq`[2], STUDBEHA$`Mean`[1], TEACBEHA$`Mea
n`[1])
AccompaniedSD <- c(READ$`SD`[1], MATH$`SD`[1], SCIE$`SD`[1], AGE$`SD`[1], GENDER$`Percentage`[1], GENDER$`P
ercentage`[2], ESCS$`SD`[1], DISCLIMA$`SD`[1], STUDREL$`SD`[1], STIMREAD$`SD`[1], STRSTRAT$`SD`[1], SELSCH$
`Percentage`[1], SELSCH$`Percentage`[2], ABGROUP$`Percentage`[1], ABGROUP$`Percentage`[2], STUDBEHA$`SD`[1]
, TEACBEHA$`SD`[1])
READ <- na.omit(pisa.mean.pv("READ", data = unrwa1))
MATH <- na.omit(pisa.mean.pv("MATH", data = unrwa1))
SCIE <- na.omit(pisa.mean.pv("SCIE", data = unrwa1))
UASC <- na.omit(pisa.mean("STIDSTD", data = unrwa1))
AGE <- na.omit(pisa.mean("AGE", data = unrwa1))
GENDER <- na.omit(pisa.table("GENDER", data = unrwa1))
ESCS <- na.omit(pisa.mean("ESCS", data = unrwa1))
DISCLIMA <- na.omit(pisa.mean("DISCLIMA", data = unrwa1))
STUDREL <- na.omit(pisa.mean("STUDREL", data = unrwa1))
STIMREAD <- na.omit(pisa.mean("STIMREAD", data = unrwa1))
STRSTRAT <- na.omit(pisa.mean("STRSTRAT", data = unrwa1))
SELSCH <- na.omit(pisa.table("SELSCH", data = unrwa1))
ABGROUP <- na.omit(pisa.table("ABGROUP", data = unrwa1))
STUDBEHA <- na.omit(pisa.mean("STUDBEHA", data = unrwa1))
TEACBEHA <- na.omit(pisa.mean("TEACBEHA", data = unrwa1))
AllMean <- c(READ$`Mean`, MATH$`Mean`, SCIE$`Mean`, AGE$`Mean`, GENDER$`Freq`[1], GENDER$`Freq`[2], ESCS$`M
ean`, DISCLIMA$`Mean`, STUDREL$`Mean`, STIMREAD$`Mean`, STRSTRAT$`Mean`, SELSCH$`Freq`[1], SELSCH$`Freq`[2]
, ABGROUP$`Freq`[1], ABGROUP$`Freq`[2], STUDBEHA$`Mean`, TEACBEHA$`Mean`)
AllSD <- c(READ$`SD`, MATH$`SD`, SCIE$`SD`, AGE$`SD`, GENDER$`Percentage`[1], GENDER$`Percentage`[2], ESCS$
`SD`, DISCLIMA$`SD`, STUDREL$`SD`, STIMREAD$`SD`, STRSTRAT$`SD`, SELSCH$`Percentage`[1], SELSCH$`Percentage
```

```
`[2], ABGROUP$`Percentage`[1], ABGROUP$`Percentage`[2], STUDBEHA$`SD`, TEACBEHA$`SD`)
desc.table <- data.frame(Var, UnaccompaniedMean, UnaccompaniedSD, AccompaniedMean, AccompaniedSD, AllMean,
AllSD)
rm(READ, MATH, SCIE, UASC, AGE, GENDER, ESCS, DISCLIMA, STUDREL, STIMREAD, STRSTRAT, SELSCH, ABGROUP, STUDB
EHA, TEACBEHA, Var, UnaccompaniedMean, UnaccompaniedSD, AccompaniedMean, AccompaniedSD, AllMean, AllSD)
write.csv(desc.table,"desc.table.csv", row.names = FALSE)
rm(desc.table)

## 1.2: Building table ####
as.data.frame.matrix(table(as.numeric(unrwa$SCHOOLID), unrwa$uasc), optinal = TRUE)
school <- subset(unrwa, SCHOOLID == "00005")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p1 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 1") + ylim(0, 32) + scale_x_discret
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00010")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p2 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 2") + ylim(0, 32) + scale_x_discret
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00035")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p3 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 3") + ylim(0, 32) + scale_x_discret
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00042")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p4 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
```

```
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 4") + ylim(0, 32) + scale_x_discret
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00055")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p5 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 5") + ylim(0, 32) + scale_x_discret
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00076")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p6 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 6") + ylim(0, 32) + scale_x_discret
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00085")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p7 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 7") + ylim(0, 32) + scale_x_discret
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00098")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p8 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 8") + ylim(0, 32) + scale_x_discret
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00113")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p9 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(labe
l = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_text
(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tick
s=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 9") + ylim(0, 32) + scale_x_discret
```

```
e(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00125")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p10 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(lab
el = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_tex
t(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tic
ks=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 10") + ylim(0, 32) + scale_x_discr
ete(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00168")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p11 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(lab
el = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_tex
t(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tic
ks=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 11") + ylim(0, 32) + scale_x_discr
ete(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00189")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p12 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(lab
el = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_tex
t(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tic
ks=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 12") + ylim(0, 32) + scale_x_discr
ete(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
school <- subset(unrwa, SCHOOLID == "00205")
school <- subset(school, select = c("SCHOOLID", "uasc"))
p13 <- ggplot(na.omit(school), aes(uasc)) + geom_bar(fill="steelblue3") + stat_count(geom = "text", aes(lab
el = stat(count)), position=position_stack(vjust=1), colour="black", size=4) + theme(plot.title=element_tex
t(size = 13, hjust = 0.5, face = "bold"), axis.title=element_blank(), axis.text.y=element_blank(), axis.tic
ks=element_blank(), axis.text.x=element_text(size=11)) + ggtitle("School 13") + ylim(0, 32) + scale_x_discr
ete(labels=c("0" = "No", "1" = "Yes"), drop=FALSE)
grid.arrange(p1, p2, p3, p4, p5, p6, p7, p8, p9, p10, p11, p12, p13, nrow = 3)
dev.print(svg, file="Unaccompanied Status by School.svg", width = 10, height = 8)
rm(p1, p2, p3, p4, p5, p6, p7, p8, p9, p10, p11, p12, p13, school)

# Step 2: Correlation Analyses ####

## 2.1: Preparing the data ####
```

```
downloadPISA(years = 2009, root = "/Users/~", cache=FALSE)
jor2009 <- readPISA(path = "/Users/~", database = "INT", countries = "jor")
jor2009 <- rename.sdf(jor2009, "st04q01", "gender")
jor2009$uasc <- as.factor(ifelse(jor2009$st08q01 == "No" & jor2009$st08q02 == "No", "Yes", "No"))
jor2009$gender <- as.factor(ifelse(jor2009$gender == "Female", "Yes", "No"))
jor2009$selsch <- as.factor(ifelse(jor2009$selsch == "Two factors are never considered", "No", "Yes"))
jor2009$abgroup <- as.factor(ifelse(jor2009$abgroup == "Not for any subjects", "No", "Yes"))
unrwa <- subset(jor2009, stratum == 40003)

## 2.2: Examining correlations ####
Variable <- c("correlation", "se", "confidenceInterval[1]", "confidenceInterval[2]", "nUsed", "UASCMean", "
UASC")
uasc.uasc <- c(cor.sdf(x='uasc', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='uasc', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'uasc', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='uasc', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='uasc', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.uasc <- c(cor.sdf(x='read', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='read', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'read', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='read', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='read', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.uasc <- c(cor.sdf(x='math', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='math', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'math', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='math', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='math', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.uasc <- c(cor.sdf(x='scie', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='scie', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'scie', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='scie', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='scie', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.uasc <- c(cor.sdf(x='age', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='age', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='ag
e', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='a
ge', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
```

```
age', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.uasc <- c(cor.sdf(x='gender', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='gender', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='gender', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='gender', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='gender', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
escs.uasc <- c(cor.sdf(x='escs', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='escs', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'escs', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='escs', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='escs', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.uasc <- c(cor.sdf(x='disclima', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='disclima', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='disclima', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='disclima', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='disclima', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
studrel.uasc <- c(cor.sdf(x='studrel', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='studrel', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='studrel', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='studrel', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='studrel', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
stimread.uasc <- c(cor.sdf(x='stimread', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='stimread', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='stimread', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='stimread', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='stimread', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
strstrat.uasc <- c(cor.sdf(x='strstrat', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='strstrat', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='strstrat', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='strstrat', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='strstrat', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
selsch.uasc <- c(cor.sdf(x='selsch', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='selsch', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
```

```
sdf(x='selsch', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='selsch', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='selsch', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
abgroup.uasc <- c(cor.sdf(x='abgroup', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='abgroup', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='abgroup', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='abgroup', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='abgroup', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
studbeha.uasc <- c(cor.sdf(x='studbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='studbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='studbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='studbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='studbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
teacbeha.uasc <- c(cor.sdf(x='teacbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='teacbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='teacbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='teacbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='teacbeha', y='uasc', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
uasc.read <- c(cor.sdf(x='uasc', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='uasc', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'uasc', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='uasc', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='uasc', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.read <- c(cor.sdf(x='read', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='read', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'read', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='read', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='read', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.read <- c(cor.sdf(x='math', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='math', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'math', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='math', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='math', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.read <- c(cor.sdf(x='scie', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
```

```
ation, cor.sdf(x='scie', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'scie', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='scie', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='scie', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.read <- c(cor.sdf(x='age', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='age', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='ag
e', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='a
ge', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
age', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.read <- c(cor.sdf(x='gender', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='gender', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='gender', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='gender', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='gender', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
escs.read <- c(cor.sdf(x='escs', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='escs', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'escs', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='escs', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='escs', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.read <- c(cor.sdf(x='disclima', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='disclima', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='disclima', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='disclima', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='disclima', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
studrel.read <- c(cor.sdf(x='studrel', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='studrel', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='studrel', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='studrel', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='studrel', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
stimread.read <- c(cor.sdf(x='stimread', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='stimread', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='stimread', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='stimread', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='stimread', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
```

```
strstrat.read <- c(cor.sdf(x='strstrat', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='strstrat', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='strstrat', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='strstrat', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='strstrat', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
selsch.read <- c(cor.sdf(x='selsch', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='selsch', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='selsch', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='selsch', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='selsch', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
abgroup.read <- c(cor.sdf(x='abgroup', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='abgroup', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='abgroup', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='abgroup', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='abgroup', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
studbeha.read <- c(cor.sdf(x='studbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='studbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='studbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='studbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='studbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
teacbeha.read <- c(cor.sdf(x='teacbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='teacbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='teacbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='teacbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='teacbeha', y='read', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
uasc.math <- c(cor.sdf(x='uasc', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='uasc', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'uasc', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='uasc', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='uasc', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.math <- c(cor.sdf(x='read', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='read', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'read', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
```

```
x='read', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='read', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.math <- c(cor.sdf(x='math', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='math', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'math', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='math', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='math', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.math <- c(cor.sdf(x='scie', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='scie', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'scie', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='scie', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='scie', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.math <- c(cor.sdf(x='age', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='age', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='ag
e', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='a
ge', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
age', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.math <- c(cor.sdf(x='gender', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='gender', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='gender', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='gender', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='gender', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
escs.math <- c(cor.sdf(x='escs', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='escs', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'escs', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='escs', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='escs', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.math <- c(cor.sdf(x='disclima', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='disclima', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='disclima', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='disclima', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='disclima', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
studrel.math <- c(cor.sdf(x='studrel', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='studrel', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='studrel', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
```

```
1], cor.sdf(x='studrel', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='studrel', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
stimread.math <- c(cor.sdf(x='stimread', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='stimread', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='stimread', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='stimread', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='stimread', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
strstrat.math <- c(cor.sdf(x='strstrat', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='strstrat', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='strstrat', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='strstrat', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='strstrat', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
selsch.math <- c(cor.sdf(x='selsch', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='selsch', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='selsch', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='selsch', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='selsch', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
abgroup.math <- c(cor.sdf(x='abgroup', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='abgroup', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='abgroup', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='abgroup', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='abgroup', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
studbeha.math <- c(cor.sdf(x='studbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='studbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='studbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='studbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='studbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
teacbeha.math <- c(cor.sdf(x='teacbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='teacbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='teacbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='teacbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='teacbeha', y='math', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
```

```
uasc.scie <- c(cor.sdf(x='uasc', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='uasc', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'uasc', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='uasc', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='uasc', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.scie <- c(cor.sdf(x='read', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='read', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'read', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='read', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='read', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.scie <- c(cor.sdf(x='math', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='math', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'math', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='math', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='math', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.scie <- c(cor.sdf(x='scie', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='scie', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'scie', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='scie', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='scie', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.scie <- c(cor.sdf(x='age', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='age', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='ag
e', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='a
ge', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
age', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.scie <- c(cor.sdf(x='gender', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='gender', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='gender', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='gender', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='gender', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
escs.scie <- c(cor.sdf(x='escs', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='escs', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'escs', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='escs', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='escs', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.scie <- c(cor.sdf(x='disclima', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
```

```
)$correlation, cor.sdf(x='disclima', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='disclima', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='disclima', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='disclima', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
studrel.scie <- c(cor.sdf(x='studrel', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='studrel', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='studrel', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='studrel', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='studrel', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
stimread.scie <- c(cor.sdf(x='stimread', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='stimread', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='stimread', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='stimread', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='stimread', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
strstrat.scie <- c(cor.sdf(x='strstrat', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='strstrat', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='strstrat', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='strstrat', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='strstrat', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
selsch.scie <- c(cor.sdf(x='selsch', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='selsch', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='selsch', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='selsch', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='selsch', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
abgroup.scie <- c(cor.sdf(x='abgroup', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='abgroup', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='abgroup', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='abgroup', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='abgroup', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
studbeha.scie <- c(cor.sdf(x='studbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='studbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='studbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='studbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
```

```
eInterval[2], cor.sdf(x='studbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
teacbeha.scie <- c(cor.sdf(x='teacbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='teacbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='teacbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='teacbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='teacbeha', y='scie', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
uasc.age <- c(cor.sdf(x='uasc', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='uasc', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='ua
sc', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='u
asc', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
uasc', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.age <- c(cor.sdf(x='read', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='read', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='re
ad', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='r
ead', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
read', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.age <- c(cor.sdf(x='math', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='math', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='ma
th', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='m
ath', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
math', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.age <- c(cor.sdf(x='scie', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='scie', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='sc
ie', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='s
cie', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
scie', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.age <- c(cor.sdf(x='age', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlatio
n, cor.sdf(x='age', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='age',
y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='age',
y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='age',
y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.age <- c(cor.sdf(x='gender', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$corr
elation, cor.sdf(x='gender', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf
(x='gender', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.
```

```
sdf(x='gender', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], c
or.sdf(x='gender', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
escs.age <- c(cor.sdf(x='escs', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='escs', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='es
cs', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='e
scs', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
escs', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.age <- c(cor.sdf(x='disclima', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='disclima', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='disclima', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='disclima', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='disclima', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
studrel.age <- c(cor.sdf(x='studrel', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='studrel', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='studrel', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='studrel', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='studrel', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
stimread.age <- c(cor.sdf(x='stimread', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='stimread', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='stimread', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='stimread', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='stimread', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
strstrat.age <- c(cor.sdf(x='strstrat', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='strstrat', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='strstrat', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='strstrat', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='strstrat', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
selsch.age <- c(cor.sdf(x='selsch', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$corr
elation, cor.sdf(x='selsch', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf
(x='selsch', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.
sdf(x='selsch', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], c
or.sdf(x='selsch', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
abgroup.age <- c(cor.sdf(x='abgroup', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='abgroup', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='abgroup', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='abgroup', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
```

```
2], cor.sdf(x='abgroup', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
studbeha.age <- c(cor.sdf(x='studbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='studbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='studbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='studbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='studbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
teacbeha.age <- c(cor.sdf(x='teacbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='teacbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='teacbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='teacbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='teacbeha', y='age', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
uasc.gender <- c(cor.sdf(x='uasc', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='uasc', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='uasc', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='uasc', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='uasc', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.gender <- c(cor.sdf(x='read', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='read', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='read', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='read', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='read', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.gender <- c(cor.sdf(x='math', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='math', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='math', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='math', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='math', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.gender <- c(cor.sdf(x='scie', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='scie', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='scie', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='scie', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='scie', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.gender <- c(cor.sdf(x='age', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$corr
elation, cor.sdf(x='age', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf
(x='age', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.
sdf(x='age', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], c
or.sdf(x='age', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
```

```
gender.gender <- c(cor.sdf(x='gender', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='gender', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='gender', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='gender', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='gender', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
escs.gender <- c(cor.sdf(x='escs', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='escs', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='escs', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='escs', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='escs', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.gender <- c(cor.sdf(x='disclima', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='disclima', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='disclima', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='disclima', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='disclima', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
studrel.gender <- c(cor.sdf(x='studrel', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$correlation, cor.sdf(x='studrel', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$se, cor.sdf(x='studrel', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceI
nterval[1], cor.sdf(x='studrel', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$conf
idenceInterval[2], cor.sdf(x='studrel', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson
')$nUsed)
stimread.gender <- c(cor.sdf(x='stimread', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='stimread', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='stimread', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='stimread', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='stimread', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
strstrat.gender <- c(cor.sdf(x='strstrat', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='strstrat', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='strstrat', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='strstrat', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='strstrat', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
selsch.gender <- c(cor.sdf(x='selsch', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
```

```
)$correlation, cor.sdf(x='selsch', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='selsch', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='selsch', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='selsch', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
abgroup.gender <- c(cor.sdf(x='abgroup', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$correlation, cor.sdf(x='abgroup', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$se, cor.sdf(x='abgroup', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceI
nterval[1], cor.sdf(x='abgroup', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$conf
idenceInterval[2], cor.sdf(x='abgroup', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson
')$nUsed)
studbeha.gender <- c(cor.sdf(x='studbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='studbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='studbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='studbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='studbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
teacbeha.gender <- c(cor.sdf(x='teacbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='teacbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='teacbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='teacbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='teacbeha', y='gender', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
uasc.escs <- c(cor.sdf(x='uasc', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='uasc', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'uasc', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='uasc', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='uasc', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.escs <- c(cor.sdf(x='read', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='read', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'read', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='read', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='read', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.escs <- c(cor.sdf(x='math', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='math', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'math', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
```

```
x='math', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='math', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.escs <- c(cor.sdf(x='scie', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='scie', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'scie', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='scie', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='scie', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.escs <- c(cor.sdf(x='age', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correlat
ion, cor.sdf(x='age', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x='ag
e', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(x='a
ge', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sdf(x='
age', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.escs <- c(cor.sdf(x='gender', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='gender', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='gender', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='gender', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='gender', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
escs.escs <- c(cor.sdf(x='escs', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$correl
ation, cor.sdf(x='escs', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf(x=
'escs', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.sdf(
x='escs', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], cor.sd
f(x='escs', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.escs <- c(cor.sdf(x='disclima', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='disclima', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='disclima', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='disclima', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='disclima', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
studrel.escs <- c(cor.sdf(x='studrel', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='studrel', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='studrel', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='studrel', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='studrel', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
stimread.escs <- c(cor.sdf(x='stimread', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='stimread', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='stimread', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
```

```
val[1], cor.sdf(x='stimread', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='stimread', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
strstrat.escs <- c(cor.sdf(x='strstrat', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='strstrat', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='strstrat', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='strstrat', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='strstrat', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
selsch.escs <- c(cor.sdf(x='selsch', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='selsch', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='selsch', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='selsch', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='selsch', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
abgroup.escs <- c(cor.sdf(x='abgroup', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='abgroup', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='abgroup', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='abgroup', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='abgroup', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
studbeha.escs <- c(cor.sdf(x='studbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='studbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='studbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='studbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='studbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
teacbeha.escs <- c(cor.sdf(x='teacbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='teacbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='teacbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='teacbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='teacbeha', y='escs', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
uasc.disclima <- c(cor.sdf(x='uasc', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='uasc', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='uasc', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='uasc', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='uasc', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
```

```
ed)
read.disclima <- c(cor.sdf(x='read', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='read', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='read', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='read', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='read', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
math.disclima <- c(cor.sdf(x='math', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='math', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='math', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='math', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='math', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
scie.disclima <- c(cor.sdf(x='scie', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='scie', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='scie', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='scie', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='scie', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
age.disclima <- c(cor.sdf(x='age', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='age', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='age', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='age', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='age', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.disclima <- c(cor.sdf(x='gender', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='gender', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='gender', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='gender', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='gender', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
escs.disclima <- c(cor.sdf(x='escs', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='escs', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='escs', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='escs', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='escs', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
```

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disclima.disclima <- c(cor.sdf(x='disclima', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='disclima', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='disclima', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='disclima', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='disclima', y='disclima', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
studrel.disclima <- c(cor.sdf(x='studrel', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='studrel', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='studrel', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='studrel', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='studrel', y='disclima', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
stimread.disclima <- c(cor.sdf(x='stimread', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='stimread', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='stimread', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='stimread', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='stimread', y='disclima', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
strstrat.disclima <- c(cor.sdf(x='strstrat', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='strstrat', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='strstrat', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='strstrat', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='strstrat', y='disclima', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
selsch.disclima <- c(cor.sdf(x='selsch', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='selsch', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='selsch', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='selsch', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='selsch', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
abgroup.disclima <- c(cor.sdf(x='abgroup', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='abgroup', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='abgroup', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='abgroup', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='abgroup', y='disclima', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
```

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studbeha.disclima <- c(cor.sdf(x='studbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='studbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='studbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='studbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='studbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
teacbeha.disclima <- c(cor.sdf(x='teacbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='teacbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='teacbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='teacbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='teacbeha', y='disclima', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
uasc.studrel <- c(cor.sdf(x='uasc', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='uasc', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='uasc', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='uasc', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='uasc', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.studrel <- c(cor.sdf(x='read', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='read', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='read', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='read', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='read', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.studrel <- c(cor.sdf(x='math', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='math', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='math', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='math', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='math', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.studrel <- c(cor.sdf(x='scie', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='scie', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='scie', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='scie', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='scie', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.studrel <- c(cor.sdf(x='age', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='age', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='age', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='age', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
```

```
2], cor.sdf(x='age', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.studrel <- c(cor.sdf(x='gender', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$correlation, cor.sdf(x='gender', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$se, cor.sdf(x='gender', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceI
nterval[1], cor.sdf(x='gender', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$conf
idenceInterval[2], cor.sdf(x='gender', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson
')$nUsed)
escs.studrel <- c(cor.sdf(x='escs', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='escs', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='escs', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='escs', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='escs', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.studrel <- c(cor.sdf(x='disclima', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='disclima', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='disclima', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='disclima', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='disclima', y='studrel', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
studrel.studrel <- c(cor.sdf(x='studrel', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='studrel', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='studrel', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='studrel', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='studrel', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
stimread.studrel <- c(cor.sdf(x='stimread', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='stimread', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='stimread', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='stimread', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='stimread', y='studrel', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
strstrat.studrel <- c(cor.sdf(x='strstrat', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='strstrat', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='strstrat', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='strstrat', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='strstrat', y='studrel', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
```

```
selsch.studrel <- c(cor.sdf(x='selsch', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$correlation, cor.sdf(x='selsch', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$se, cor.sdf(x='selsch', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceI
nterval[1], cor.sdf(x='selsch', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$conf
idenceInterval[2], cor.sdf(x='selsch', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson
')$nUsed)
abgroup.studrel <- c(cor.sdf(x='abgroup', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='abgroup', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='abgroup', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='abgroup', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='abgroup', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
studbeha.studrel <- c(cor.sdf(x='studbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='studbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='studbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='studbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='studbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
teacbeha.studrel <- c(cor.sdf(x='teacbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='teacbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='teacbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='teacbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='teacbeha', y='studrel', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
uasc.stimread <- c(cor.sdf(x='uasc', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='uasc', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='uasc', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='uasc', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='uasc', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
read.stimread <- c(cor.sdf(x='read', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='read', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='read', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='read', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='read', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
```

```
math.stimread <- c(cor.sdf(x='math', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='math', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='math', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='math', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='math', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
scie.stimread <- c(cor.sdf(x='scie', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='scie', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='scie', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='scie', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='scie', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
age.stimread <- c(cor.sdf(x='age', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='age', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='age', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='age', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='age', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.stimread <- c(cor.sdf(x='gender', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='gender', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='gender', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='gender', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='gender', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
escs.stimread <- c(cor.sdf(x='escs', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='escs', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='escs', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='escs', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='escs', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
disclima.stimread <- c(cor.sdf(x='disclima', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='disclima', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='disclima', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='disclima', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='disclima', y='stimread', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
studrel.stimread <- c(cor.sdf(x='studrel', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
```

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arson')$correlation, cor.sdf(x='studrel', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='studrel', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='studrel', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='studrel', y='stimread', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
stimread.stimread <- c(cor.sdf(x='stimread', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='stimread', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='stimread', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='stimread', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='stimread', y='stimread', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
strstrat.stimread <- c(cor.sdf(x='strstrat', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='strstrat', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='strstrat', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='strstrat', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='strstrat', y='stimread', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
selsch.stimread <- c(cor.sdf(x='selsch', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='selsch', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='selsch', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='selsch', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='selsch', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
abgroup.stimread <- c(cor.sdf(x='abgroup', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='abgroup', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='abgroup', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='abgroup', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='abgroup', y='stimread', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
studbeha.stimread <- c(cor.sdf(x='studbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='studbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='studbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='studbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='studbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
teacbeha.stimread <- c(cor.sdf(x='teacbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
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```
Pearson')$correlation, cor.sdf(x='teacbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='teacbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='teacbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='teacbeha', y='stimread', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
uasc.strstrat <- c(cor.sdf(x='uasc', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='uasc', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='uasc', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='uasc', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='uasc', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
read.strstrat <- c(cor.sdf(x='read', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='read', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='read', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='read', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='read', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
math.strstrat <- c(cor.sdf(x='math', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='math', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='math', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='math', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='math', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
scie.strstrat <- c(cor.sdf(x='scie', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='scie', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='scie', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='scie', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='scie', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
age.strstrat <- c(cor.sdf(x='age', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='age', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='age', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='age', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='age', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.strstrat <- c(cor.sdf(x='gender', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='gender', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
```

```
n')$se, cor.sdf(x='gender', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='gender', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='gender', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
escs.strstrat <- c(cor.sdf(x='escs', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='escs', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='escs', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='escs', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='escs', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
disclima.strstrat <- c(cor.sdf(x='disclima', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='disclima', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='disclima', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='disclima', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='disclima', y='strstrat', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
studrel.strstrat <- c(cor.sdf(x='studrel', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='studrel', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='studrel', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='studrel', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='studrel', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
stimread.strstrat <- c(cor.sdf(x='stimread', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='stimread', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='stimread', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='stimread', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='stimread', y='strstrat', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
strstrat.strstrat <- c(cor.sdf(x='strstrat', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='strstrat', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='strstrat', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='strstrat', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='strstrat', y='strstrat', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
selsch.strstrat <- c(cor.sdf(x='selsch', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='selsch', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
```

```
n')$se, cor.sdf(x='selsch', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='selsch', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='selsch', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
abgroup.strstrat <- c(cor.sdf(x='abgroup', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='abgroup', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='abgroup', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='abgroup', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='abgroup', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
studbeha.strstrat <- c(cor.sdf(x='studbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='studbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='studbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='studbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='studbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
teacbeha.strstrat <- c(cor.sdf(x='teacbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='teacbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='teacbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='teacbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='teacbeha', y='strstrat', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
uasc.selsch <- c(cor.sdf(x='uasc', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='uasc', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='uasc', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='uasc', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='uasc', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.selsch <- c(cor.sdf(x='read', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='read', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='read', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='read', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='read', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.selsch <- c(cor.sdf(x='math', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='math', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='math', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='math', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
```

```
2], cor.sdf(x='math', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.selsch <- c(cor.sdf(x='scie', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='scie', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='scie', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='scie', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='scie', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.selsch <- c(cor.sdf(x='age', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$corr
elation, cor.sdf(x='age', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.sdf
(x='age', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1], cor.
sdf(x='age', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[2], c
or.sdf(x='age', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.selsch <- c(cor.sdf(x='gender', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='gender', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='gender', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='gender', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='gender', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
escs.selsch <- c(cor.sdf(x='escs', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='escs', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='escs', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='escs', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='escs', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.selsch <- c(cor.sdf(x='disclima', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='disclima', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='disclima', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='disclima', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='disclima', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
studrel.selsch <- c(cor.sdf(x='studrel', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$correlation, cor.sdf(x='studrel', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$se, cor.sdf(x='studrel', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceI
nterval[1], cor.sdf(x='studrel', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$conf
idenceInterval[2], cor.sdf(x='studrel', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson
')$nUsed)
stimread.selsch <- c(cor.sdf(x='stimread', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='stimread', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
```

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n')$se, cor.sdf(x='stimread', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='stimread', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='stimread', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
strstrat.selsch <- c(cor.sdf(x='strstrat', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='strstrat', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='strstrat', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='strstrat', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='strstrat', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
selsch.selsch <- c(cor.sdf(x='selsch', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='selsch', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='selsch', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='selsch', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='selsch', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
abgroup.selsch <- c(cor.sdf(x='abgroup', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$correlation, cor.sdf(x='abgroup', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$se, cor.sdf(x='abgroup', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceI
nterval[1], cor.sdf(x='abgroup', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$conf
idenceInterval[2], cor.sdf(x='abgroup', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson
')$nUsed)
studbeha.selsch <- c(cor.sdf(x='studbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='studbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='studbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='studbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='studbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
teacbeha.selsch <- c(cor.sdf(x='teacbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='teacbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='teacbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='teacbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='teacbeha', y='selsch', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
uasc.abgroup <- c(cor.sdf(x='uasc', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='uasc', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
```

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or.sdf(x='uasc', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='uasc', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='uasc', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
read.abgroup <- c(cor.sdf(x='read', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='read', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='read', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='read', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='read', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
math.abgroup <- c(cor.sdf(x='math', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='math', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='math', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='math', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='math', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
scie.abgroup <- c(cor.sdf(x='scie', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='scie', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='scie', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='scie', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='scie', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
age.abgroup <- c(cor.sdf(x='age', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$co
rrelation, cor.sdf(x='age', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, cor.
sdf(x='age', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[1],
cor.sdf(x='age', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
2], cor.sdf(x='age', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.abgroup <- c(cor.sdf(x='gender', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$correlation, cor.sdf(x='gender', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$se, cor.sdf(x='gender', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceI
nterval[1], cor.sdf(x='gender', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$conf
idenceInterval[2], cor.sdf(x='gender', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson
')$nUsed)
escs.abgroup <- c(cor.sdf(x='escs', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='escs', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='escs', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='escs', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='escs', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
disclima.abgroup <- c(cor.sdf(x='disclima', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='disclima', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
```

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rson')$se, cor.sdf(x='disclima', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='disclima', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='disclima', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
studrel.abgroup <- c(cor.sdf(x='studrel', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='studrel', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='studrel', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='studrel', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='studrel', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
stimread.abgroup <- c(cor.sdf(x='stimread', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='stimread', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='stimread', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='stimread', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='stimread', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
strstrat.abgroup <- c(cor.sdf(x='strstrat', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='strstrat', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='strstrat', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='strstrat', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='strstrat', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
selsch.abgroup <- c(cor.sdf(x='selsch', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$correlation, cor.sdf(x='selsch', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$se, cor.sdf(x='selsch', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceI
nterval[1], cor.sdf(x='selsch', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$conf
idenceInterval[2], cor.sdf(x='selsch', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson
')$nUsed)
abgroup.abgroup <- c(cor.sdf(x='abgroup', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='abgroup', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='abgroup', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='abgroup', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='abgroup', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
studbeha.abgroup <- c(cor.sdf(x='studbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='studbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
```

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rson')$se, cor.sdf(x='studbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='studbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='studbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
teacbeha.abgroup <- c(cor.sdf(x='teacbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='teacbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='teacbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='teacbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='teacbeha', y='abgroup', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
uasc.studbeha <- c(cor.sdf(x='uasc', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='uasc', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='uasc', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='uasc', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='uasc', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
read.studbeha <- c(cor.sdf(x='read', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='read', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='read', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='read', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='read', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
math.studbeha <- c(cor.sdf(x='math', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='math', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='math', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='math', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='math', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
scie.studbeha <- c(cor.sdf(x='scie', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='scie', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='scie', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='scie', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='scie', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
age.studbeha <- c(cor.sdf(x='age', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='age', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
```

```
or.sdf(x='age', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='age', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='age', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.studbeha <- c(cor.sdf(x='gender', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='gender', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='gender', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='gender', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='gender', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
escs.studbeha <- c(cor.sdf(x='escs', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='escs', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='escs', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='escs', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='escs', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
disclima.studbeha <- c(cor.sdf(x='disclima', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='disclima', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='disclima', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='disclima', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='disclima', y='studbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
studrel.studbeha <- c(cor.sdf(x='studrel', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='studrel', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='studrel', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='studrel', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='studrel', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
stimread.studbeha <- c(cor.sdf(x='stimread', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='stimread', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='stimread', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='stimread', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='stimread', y='studbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
strstrat.studbeha <- c(cor.sdf(x='strstrat', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='strstrat', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='strstrat', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
```

```
$confidenceInterval[1], cor.sdf(x='strstrat', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='strstrat', y='studbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
selsch.studbeha <- c(cor.sdf(x='selsch', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='selsch', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='selsch', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='selsch', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='selsch', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
abgroup.studbeha <- c(cor.sdf(x='abgroup', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='abgroup', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='abgroup', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='abgroup', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='abgroup', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
studbeha.studbeha <- c(cor.sdf(x='studbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='studbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='studbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='studbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='studbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
teacbeha.studbeha <- c(cor.sdf(x='teacbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='teacbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='teacbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='teacbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='teacbeha', y='studbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
uasc.teacbeha <- c(cor.sdf(x='uasc', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='uasc', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='uasc', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='uasc', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='uasc', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
read.teacbeha <- c(cor.sdf(x='read', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='read', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='read', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
```

```
val[1], cor.sdf(x='read', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='read', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
math.teacbeha <- c(cor.sdf(x='math', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='math', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='math', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='math', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='math', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
scie.teacbeha <- c(cor.sdf(x='scie', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='scie', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='scie', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='scie', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='scie', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
age.teacbeha <- c(cor.sdf(x='age', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$
correlation, cor.sdf(x='age', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se, c
or.sdf(x='age', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInterval[
1], cor.sdf(x='age', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInte
rval[2], cor.sdf(x='age', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUsed)
gender.teacbeha <- c(cor.sdf(x='gender', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='gender', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='gender', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='gender', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='gender', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
escs.teacbeha <- c(cor.sdf(x='escs', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson'
)$correlation, cor.sdf(x='escs', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$se
, cor.sdf(x='escs', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenceInter
val[1], cor.sdf(x='escs', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confidenc
eInterval[2], cor.sdf(x='escs', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$nUs
ed)
disclima.teacbeha <- c(cor.sdf(x='disclima', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='disclima', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='disclima', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='disclima', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method =
```

```
'Pearson')$confidenceInterval[2], cor.sdf(x='disclima', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
studrel.teacbeha <- c(cor.sdf(x='studrel', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='studrel', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='studrel', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='studrel', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='studrel', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
stimread.teacbeha <- c(cor.sdf(x='stimread', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='stimread', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='stimread', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='stimread', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='stimread', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
strstrat.teacbeha <- c(cor.sdf(x='strstrat', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='strstrat', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='strstrat', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='strstrat', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='strstrat', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
selsch.teacbeha <- c(cor.sdf(x='selsch', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$correlation, cor.sdf(x='selsch', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearso
n')$se, cor.sdf(x='selsch', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$confide
nceInterval[1], cor.sdf(x='selsch', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[2], cor.sdf(x='selsch', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'P
earson')$nUsed)
abgroup.teacbeha <- c(cor.sdf(x='abgroup', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pe
arson')$correlation, cor.sdf(x='abgroup', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pea
rson')$se, cor.sdf(x='abgroup', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')$con
fidenceInterval[1], cor.sdf(x='abgroup', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pear
son')$confidenceInterval[2], cor.sdf(x='abgroup', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, metho
d = 'Pearson')$nUsed)
studbeha.teacbeha <- c(cor.sdf(x='studbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='studbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='studbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='studbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method =
```

```
'Pearson')$confidenceInterval[2], cor.sdf(x='studbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)
teacbeha.teacbeha <- c(cor.sdf(x='teacbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$correlation, cor.sdf(x='teacbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = '
Pearson')$se, cor.sdf(x='teacbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method = 'Pearson')
$confidenceInterval[1], cor.sdf(x='teacbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa, method =
'Pearson')$confidenceInterval[2], cor.sdf(x='teacbeha', y='teacbeha', weightVar = 'w_fstuwt', data = unrwa,
method = 'Pearson')$nUsed)

## 2.3: Plotting correlation matrix ####
cor.table1 <- data.frame(uasc.uasc, read.uasc, math.uasc, scie.uasc, age.uasc, gender.uasc, escs.uasc, disc
lima.uasc, studrel.uasc, stimread.uasc, strstrat.uasc, selsch.uasc, abgroup.uasc, studbeha.uasc, teacbeha.u
asc, uasc.read, read.read, math.read, scie.read, age.read, gender.read, escs.read, disclima.read, studrel.r
ead, stimread.read, strstrat.read, selsch.read, abgroup.read, studbeha.read, teacbeha.read, uasc.math, read
.math, math.math, scie.math, age.math, gender.math, escs.math, disclima.math, studrel.math, stimread.math,
strstrat.math, selsch.math, abgroup.math, studbeha.math, teacbeha.math, uasc.scie, read.scie, math.scie, sc
ie.scie, age.scie, gender.scie, escs.scie, disclima.scie, studrel.scie, stimread.scie, strstrat.scie, selsc
h.scie, abgroup.scie, studbeha.scie, teacbeha.scie, uasc.age, read.age, math.age, scie.age, age.age, gender
.age, escs.age, disclima.age, studrel.age, stimread.age, strstrat.age, selsch.age, abgroup.age, studbeha.ag
e, teacbeha.age, uasc.gender, read.gender, math.gender, scie.gender, age.gender, gender.gender, escs.gender
, disclima.gender, studrel.gender, stimread.gender, strstrat.gender, selsch.gender, abgroup.gender, studbeh
a.gender, teacbeha.gender, uasc.escs, read.escs, math.escs, scie.escs, age.escs, gender.escs, escs.escs, di
sclima.escs, studrel.escs, stimread.escs, strstrat.escs, selsch.escs, abgroup.escs, studbeha.escs, teacbeha
.escs)
cor.table2 <- data.frame(uasc.disclima, read.disclima, math.disclima, scie.disclima, age.disclima, gender.d
isclima, escs.disclima, disclima.disclima, studrel.disclima, stimread.disclima, strstrat.disclima, selsch.d
isclima, abgroup.disclima, studbeha.disclima, teacbeha.disclima, uasc.studrel, read.studrel, math.studrel,
scie.studrel, age.studrel, gender.studrel, escs.studrel, disclima.studrel, studrel.studrel, stimread.studre
l, strstrat.studrel, selsch.studrel, abgroup.studrel, studbeha.studrel, teacbeha.studrel, uasc.stimread, re
ad.stimread, math.stimread, scie.stimread, age.stimread, gender.stimread, escs.stimread, disclima.stimread,
studrel.stimread, stimread.stimread, strstrat.stimread, selsch.stimread, abgroup.stimread, studbeha.stimrea
d, teacbeha.stimread, uasc.strstrat, read.strstrat, math.strstrat, scie.strstrat, age.strstrat, gender.strs
trat, escs.strstrat, disclima.strstrat, studrel.strstrat, stimread.strstrat, strstrat.strstrat, selsch.strs
trat, abgroup.strstrat, studbeha.strstrat, teacbeha.strstrat, uasc.selsch, read.selsch, math.selsch, scie.s
elsch, age.selsch, gender.selsch, escs.selsch, disclima.selsch, studrel.selsch, stimread.selsch, strstrat.s
elsch, selsch.selsch, abgroup.selsch, studbeha.selsch, teacbeha.selsch, uasc.abgroup, read.abgroup, math.ab
```

```
group, scie.abgroup, age.abgroup, gender.abgroup, escs.abgroup, disclima.abgroup, studrel.abgroup, stimread
.abgroup, strstrat.abgroup, selsch.abgroup, abgroup.abgroup, studbeha.abgroup, teacbeha.abgroup, uasc.studb
eha, read.studbeha, math.studbeha, scie.studbeha, age.studbeha, gender.studbeha, escs.studbeha, disclima.st
udbeha, studrel.studbeha, stimread.studbeha, strstrat.studbeha, selsch.studbeha, abgroup.studbeha, studbeha
.studbeha, teacbeha.studbeha, uasc.teacbeha, read.teacbeha, math.teacbeha, scie.teacbeha, age.teacbeha, gen
der.teacbeha, escs.teacbeha, disclima.teacbeha, studrel.teacbeha, stimread.teacbeha, strstrat.teacbeha, sel
sch.teacbeha, abgroup.teacbeha, studbeha.teacbeha, teacbeha.teacbeha)
cor.table <- cbind(cor.table1, cor.table2)
rm(cor.table1, cor.table2)
write.csv(cor.table,"cor.table.csv", row.names = FALSE) # t-score and p-value are calculated on excel
rm(uasc.uasc, read.uasc, math.uasc, scie.uasc, age.uasc, gender.uasc, escs.uasc, disclima.uasc, studrel.uas
c, stimread.uasc, strstrat.uasc, selsch.uasc, abgroup.uasc, studbeha.uasc, teacbeha.uasc, uasc.read, read.r
ead, math.read, scie.read, age.read, gender.read, escs.read, disclima.read, studrel.read, stimread.read, st
rstrat.read, selsch.read, abgroup.read, studbeha.read, teacbeha.read, uasc.math, read.math, math.math, scie
.math, age.math, gender.math, escs.math, disclima.math, studrel.math, stimread.math, strstrat.math, selsch.
math, abgroup.math, studbeha.math, teacbeha.math, uasc.scie, read.scie, math.scie, scie.scie, age.scie, gen
der.scie, escs.scie, disclima.scie, studrel.scie, stimread.scie, strstrat.scie, selsch.scie, abgroup.scie,
studbeha.scie, teacbeha.scie, uasc.age, read.age, math.age, scie.age, age.age, gender.age, escs.age, discli
ma.age, studrel.age, stimread.age, strstrat.age, selsch.age, abgroup.age, studbeha.age, teacbeha.age, uasc.
gender, read.gender, math.gender, scie.gender, age.gender, gender.gender, escs.gender, disclima.gender, stu
drel.gender, stimread.gender, strstrat.gender, selsch.gender, abgroup.gender, studbeha.gender, teacbeha.gen
der, uasc.escs, read.escs, math.escs, scie.escs, age.escs, gender.escs, escs.escs, disclima.escs, studrel.e
scs, stimread.escs, strstrat.escs, selsch.escs, abgroup.escs, studbeha.escs, teacbeha.escs)
rm(uasc.disclima, read.disclima, math.disclima, scie.disclima, age.disclima, gender.disclima, escs.disclima
, disclima.disclima, studrel.disclima, stimread.disclima, strstrat.disclima, selsch.disclima, abgroup.discl
ima, studbeha.disclima, teacbeha.disclima, uasc.studrel, read.studrel, math.studrel, scie.studrel, age.stud
rel, gender.studrel, escs.studrel, disclima.studrel, studrel.studrel, stimread.studrel, strstrat.studrel, s
elsch.studrel, abgroup.studrel, studbeha.studrel, teacbeha.studrel, uasc.stimread, read.stimread, math.stim
read, scie.stimread, age.stimread, gender.stimread, escs.stimread, disclima.stimread, studrel.stimread, sti
mread.stimread, strstrat.stimread, selsch.stimread, abgroup.stimread, studbeha.stimread, teacbeha.stimread,
uasc.strstrat, read.strstrat, math.strstrat, scie.strstrat, age.strstrat, gender.strstrat, escs.strstrat, d
isclima.strstrat, studrel.strstrat, stimread.strstrat, strstrat.strstrat, selsch.strstrat, abgroup.strstrat
, studbeha.strstrat, teacbeha.strstrat, uasc.selsch, read.selsch, math.selsch, scie.selsch, age.selsch, gen
der.selsch, escs.selsch, disclima.selsch, studrel.selsch, stimread.selsch, strstrat.selsch, selsch.selsch,
abgroup.selsch, studbeha.selsch, teacbeha.selsch, uasc.abgroup, read.abgroup, math.abgroup, scie.abgroup, a
ge.abgroup, gender.abgroup, escs.abgroup, disclima.abgroup, studrel.abgroup, stimread.abgroup, strstrat.abg
```

```
roup, selsch.abgroup, abgroup.abgroup, studbeha.abgroup, teacbeha.abgroup, uasc.studbeha, read.studbeha, ma
th.studbeha, scie.studbeha, age.studbeha, gender.studbeha, escs.studbeha, disclima.studbeha, studrel.studbe
ha, stimread.studbeha, strstrat.studbeha, selsch.studbeha, abgroup.studbeha, studbeha.studbeha, teacbeha.st
udbeha, uasc.teacbeha, read.teacbeha, math.teacbeha, scie.teacbeha, age.teacbeha, gender.teacbeha, escs.tea
cbeha, disclima.teacbeha, studrel.teacbeha, stimread.teacbeha, strstrat.teacbeha, selsch.teacbeha, abgroup.
teacbeha, studbeha.teacbeha, teacbeha.teacbeha)
rm(Variable, cor.table)

# Step 3: Hierarchical Regression Analyses ####

## 3.1: Examining model 0 ####
m1 <- summary(mixed.sdf(read ~ 1 + (1|schoolid), data = unrwa))
m2 <- summary(mixed.sdf(math ~ 1 + (1|schoolid), data = unrwa))
m3 <- summary(mixed.sdf(scie ~ 1 + (1|schoolid), data = unrwa))
Variable <- c("(Intercept)", "Level-2 variance", "Level-1 variance")
m1.e <- c(as.numeric(m1$coef[1,1]), as.numeric(m1$varsmatSum[1,4]), as.numeric(m1$varsmatSum[2,4]))
m1.s <- c(as.numeric(m1$coef[1,2]), as.numeric(m1$varsmatSum[1,5]), as.numeric(m1$varsmatSum[2,5]))
m1.t <- c(as.numeric(m1$coef[1,3]), NA, NA)
m2.e <- c(as.numeric(m2$coef[1,1]), as.numeric(m2$varsmatSum[1,4]), as.numeric(m2$varsmatSum[2,4]))
m2.s <- c(as.numeric(m2$coef[1,2]), as.numeric(m2$varsmatSum[1,5]), as.numeric(m2$varsmatSum[2,5]))
m2.t <- c(as.numeric(m2$coef[1,3]), NA, NA)
m3.e <- c(as.numeric(m3$coef[1,1]), as.numeric(m3$varsmatSum[1,4]), as.numeric(m3$varsmatSum[2,4]))
m3.s <- c(as.numeric(m3$coef[1,2]), as.numeric(m3$varsmatSum[1,5]), as.numeric(m3$varsmatSum[2,5]))
m3.t <- c(as.numeric(m3$coef[1,3]), NA, NA)
DATA <- data.frame(Variable, m1.e, m1.s, m1.t, m2.e, m2.s, m2.t, m3.e, m3.s, m3.t)
write.csv(DATA,"Model 0 Results.csv", row.names = FALSE)
Variable <- c("icc", "School N", "Student N")
m1.e <- c(as.numeric(m1$ICC), as.numeric(m1$ngroups$Observations[2]), as.numeric(m1$ngroups$Observations[1]
))
m2.e <- c(as.numeric(m2$ICC), as.numeric(m2$ngroups$Observations[2]), as.numeric(m2$ngroups$Observations[1]
))
m3.e <- c(as.numeric(m3$ICC), as.numeric(m3$ngroups$Observations[2]), as.numeric(m3$ngroups$Observations[1]
))
DATA <- data.frame(Variable, m1.e, m2.e, m3.e)
write.csv(DATA,"Model 0 Tests.csv", row.names = FALSE)
```

```
## 3.2: Examining model 1 ####
m1 <- summary(lm.sdf(read ~ uasc, data = unrwa))
m2 <- summary(lm.sdf(math ~ uasc, data = unrwa))
m3 <- summary(lm.sdf(scie ~ uasc, data = unrwa))
Variable <- c("(Intercept)", "uasc")
m1.e <- c(as.numeric(m1$coefmat[1,1]), as.numeric(m1$coefmat[2,1]))
m1.s <- c(as.numeric(m1$coefmat[1,2]), as.numeric(m1$coefmat[2,2]))
m1.t <- c(as.numeric(m1$coefmat[1,3]), as.numeric(m1$coefmat[2,3]))
m1.d <- c(as.numeric(m1$coefmat[1,4]), as.numeric(m1$coefmat[2,4]))
m1.p <- c(as.numeric(m1$coefmat[1,5]), as.numeric(m1$coefmat[2,5]))
m2.e <- c(as.numeric(m2$coefmat[1,1]), as.numeric(m2$coefmat[2,1]))
m2.s <- c(as.numeric(m2$coefmat[1,2]), as.numeric(m2$coefmat[2,2]))
m2.t <- c(as.numeric(m2$coefmat[1,3]), as.numeric(m2$coefmat[2,3]))
m2.d <- c(as.numeric(m2$coefmat[1,4]), as.numeric(m2$coefmat[2,4]))
m2.p <- c(as.numeric(m2$coefmat[1,5]), as.numeric(m2$coefmat[2,5]))
m3.e <- c(as.numeric(m3$coefmat[1,1]), as.numeric(m3$coefmat[2,1]))
m3.s <- c(as.numeric(m3$coefmat[1,2]), as.numeric(m3$coefmat[2,2]))
m3.t <- c(as.numeric(m3$coefmat[1,3]), as.numeric(m3$coefmat[2,3]))
m3.d <- c(as.numeric(m3$coefmat[1,4]), as.numeric(m3$coefmat[2,4]))
m3.p <- c(as.numeric(m3$coefmat[1,5]), as.numeric(m3$coefmat[2,5]))
DATA <- data.frame(Variable, m1.e, m1.s, m1.t, m1.d, m1.p, m2.e, m2.s, m2.t, m2.d, m2.p, m3.e, m3.s, m3.t,
m3.d, m3.p)
write.csv(DATA,"Model 1 Results.csv", row.names = FALSE)
t1 <- waldTest(lm.sdf(read ~ uasc, data = unrwa), coefficients = 2)
t2 <- waldTest(lm.sdf(math ~ uasc, data = unrwa), coefficients = 2)
t3 <- waldTest(lm.sdf(scie ~ uasc, data = unrwa), coefficients = 2)
Variable <- c("r", "n", "X2", "df", "P")
m1.e <- c(as.numeric(m1$r.squared), as.numeric(m1$nUsed), as.numeric(t1$result$chi2[1]), as.numeric(t1$resu
lt$chi2[2]), as.numeric(t1$result$chi2[3]))
m2.e <- c(as.numeric(m2$r.squared), as.numeric(m2$nUsed), as.numeric(t2$result$chi2[1]), as.numeric(t2$resu
lt$chi2[2]), as.numeric(t2$result$chi2[3]))
m3.e <- c(as.numeric(m3$r.squared), as.numeric(m3$nUsed), as.numeric(t3$result$chi2[1]), as.numeric(t3$resu
lt$chi2[2]), as.numeric(t3$result$chi2[3]))
DATA <- data.frame(Variable, m1.e, m2.e,m3.e)
write.csv(DATA,"Model 1 Tests.csv", row.names = FALSE)
```

```
## 3.3: Examining model 2 ####
m1 <- summary(lm.sdf(read ~ uasc + age + gender + escs, data = unrwa))
m2 <- summary(lm.sdf(math ~ uasc + age + gender + escs, data = unrwa))
m3 <- summary(lm.sdf(scie ~ uasc + age + gender + escs, data = unrwa))
Variable <- c("(Intercept)", "uasc", "age", "gender", "escs")
m1.e <- c(as.numeric(m1$coefmat[1,1]), as.numeric(m1$coefmat[2,1]), as.numeric(m1$coefmat[3,1]), as.numeric
(m1$coefmat[4,1]), as.numeric(m1$coefmat[5,1]))
m1.s <- c(as.numeric(m1$coefmat[1,2]), as.numeric(m1$coefmat[2,2]), as.numeric(m1$coefmat[3,2]), as.numeric
(m1$coefmat[4,2]), as.numeric(m1$coefmat[5,2]))
m1.t <- c(as.numeric(m1$coefmat[1,3]), as.numeric(m1$coefmat[2,3]), as.numeric(m1$coefmat[3,3]), as.numeric
(m1$coefmat[4,3]), as.numeric(m1$coefmat[5,3]))
m1.d <- c(as.numeric(m1$coefmat[1,4]), as.numeric(m1$coefmat[2,4]), as.numeric(m1$coefmat[3,4]), as.numeric
(m1$coefmat[4,4]), as.numeric(m1$coefmat[5,4]))
m1.p <- c(as.numeric(m1$coefmat[1,5]), as.numeric(m1$coefmat[2,5]), as.numeric(m1$coefmat[3,5]), as.numeric
(m1$coefmat[4,5]), as.numeric(m1$coefmat[5,5]))
m2.e <- c(as.numeric(m2$coefmat[1,1]), as.numeric(m2$coefmat[2,1]), as.numeric(m2$coefmat[3,1]), as.numeric
(m2$coefmat[4,1]), as.numeric(m2$coefmat[5,1]))
m2.s <- c(as.numeric(m2$coefmat[1,2]), as.numeric(m2$coefmat[2,2]), as.numeric(m2$coefmat[3,2]), as.numeric
(m2$coefmat[4,2]), as.numeric(m2$coefmat[5,2]))
m2.t <- c(as.numeric(m2$coefmat[1,3]), as.numeric(m2$coefmat[2,3]), as.numeric(m2$coefmat[3,3]), as.numeric
(m2$coefmat[4,3]), as.numeric(m2$coefmat[5,3]))
m2.d <- c(as.numeric(m2$coefmat[1,4]), as.numeric(m2$coefmat[2,4]), as.numeric(m2$coefmat[3,4]), as.numeric
(m2$coefmat[4,4]), as.numeric(m2$coefmat[5,4]))
m2.p <- c(as.numeric(m2$coefmat[1,5]), as.numeric(m2$coefmat[2,5]), as.numeric(m2$coefmat[3,5]), as.numeric
(m2$coefmat[4,5]), as.numeric(m2$coefmat[5,5]))
m3.e <- c(as.numeric(m3$coefmat[1,1]), as.numeric(m3$coefmat[2,1]), as.numeric(m3$coefmat[3,1]), as.numeric
(m3$coefmat[4,1]), as.numeric(m3$coefmat[5,1]))
m3.s <- c(as.numeric(m3$coefmat[1,2]), as.numeric(m3$coefmat[2,2]), as.numeric(m3$coefmat[3,2]), as.numeric
(m3$coefmat[4,2]), as.numeric(m3$coefmat[5,2]))
m3.t <- c(as.numeric(m3$coefmat[1,3]), as.numeric(m3$coefmat[2,3]), as.numeric(m3$coefmat[3,3]), as.numeric
(m3$coefmat[4,3]), as.numeric(m3$coefmat[5,3]))
m3.d <- c(as.numeric(m3$coefmat[1,4]), as.numeric(m3$coefmat[2,4]), as.numeric(m3$coefmat[3,4]), as.numeric
(m3$coefmat[4,4]), as.numeric(m3$coefmat[5,4]))
m3.p <- c(as.numeric(m3$coefmat[1,5]), as.numeric(m3$coefmat[2,5]), as.numeric(m3$coefmat[3,5]), as.numeric
(m3$coefmat[4,5]), as.numeric(m3$coefmat[5,5]))
DATA <- data.frame(Variable, m1.e, m1.s, m1.t, m1.d, m1.p, m2.e, m2.s, m2.t, m2.d, m2.p, m3.e, m3.s, m3.t,
```

```
m3.d, m3.p)
write.csv(DATA,"Model 2 Results.csv", row.names = FALSE)
t1 <- waldTest(lm.sdf(read ~ uasc + age + gender + escs, data = unrwa), coefficients = 3:5)
t2 <- waldTest(lm.sdf(math ~ uasc + age + gender + escs, data = unrwa), coefficients = 3:5)
t3 <- waldTest(lm.sdf(scie ~ uasc + age + gender + escs, data = unrwa), coefficients = 3:5)
Variable <- c("r", "n", "X2", "df", "P")
m1.e <- c(as.numeric(m1$r.squared), as.numeric(m1$nUsed), as.numeric(t1$result$chi2[1]), as.numeric(t1$resu
lt$chi2[2]), as.numeric(t1$result$chi2[3]))
m2.e <- c(as.numeric(m2$r.squared), as.numeric(m2$nUsed), as.numeric(t2$result$chi2[1]), as.numeric(t2$resu
lt$chi2[2]), as.numeric(t2$result$chi2[3]))
m3.e <- c(as.numeric(m3$r.squared), as.numeric(m3$nUsed), as.numeric(t3$result$chi2[1]), as.numeric(t3$resu
lt$chi2[2]), as.numeric(t3$result$chi2[3]))
DATA <- data.frame(Variable, m1.e, m2.e,m3.e)
write.csv(DATA,"Model 2 Tests.csv", row.names = FALSE)

## 3.4: Examining model 3 ####
m1 <- summary(lm.sdf(read ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat, data = u
nrwa))
m2 <- summary(lm.sdf(math ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat, data = u
nrwa))
m3 <- summary(lm.sdf(scie ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat, data = u
nrwa))
Variable <- c("(Intercept)", "uasc", "age", "gender", "escs", "disclima", "studrel", "stimread", "strstrat"
)
m1.e <- c(as.numeric(m1$coefmat[1,1]), as.numeric(m1$coefmat[2,1]), as.numeric(m1$coefmat[3,1]), as.numeric
(m1$coefmat[4,1]), as.numeric(m1$coefmat[5,1]), as.numeric(m1$coefmat[6,1]), as.numeric(m1$coefmat[7,1]), a
s.numeric(m1$coefmat[8,1]), as.numeric(m1$coefmat[9,1]))
m1.s <- c(as.numeric(m1$coefmat[1,2]), as.numeric(m1$coefmat[2,2]), as.numeric(m1$coefmat[3,2]), as.numeric
(m1$coefmat[4,2]), as.numeric(m1$coefmat[5,2]), as.numeric(m1$coefmat[6,2]), as.numeric(m1$coefmat[7,2]), a
s.numeric(m1$coefmat[8,2]), as.numeric(m1$coefmat[9,2]))
m1.t <- c(as.numeric(m1$coefmat[1,3]), as.numeric(m1$coefmat[2,3]), as.numeric(m1$coefmat[3,3]), as.numeric
(m1$coefmat[4,3]), as.numeric(m1$coefmat[5,3]), as.numeric(m1$coefmat[6,3]), as.numeric(m1$coefmat[7,3]), a
s.numeric(m1$coefmat[8,3]), as.numeric(m1$coefmat[9,3]))
m1.d <- c(as.numeric(m1$coefmat[1,4]), as.numeric(m1$coefmat[2,4]), as.numeric(m1$coefmat[3,4]), as.numeric
(m1$coefmat[4,4]), as.numeric(m1$coefmat[5,4]), as.numeric(m1$coefmat[6,4]), as.numeric(m1$coefmat[7,4]), a
s.numeric(m1$coefmat[8,4]), as.numeric(m1$coefmat[9,4]))
```

```
m1.p <- c(as.numeric(m1$coefmat[1,5]), as.numeric(m1$coefmat[2,5]), as.numeric(m1$coefmat[3,5]), as.numeric
(m1$coefmat[4,5]), as.numeric(m1$coefmat[5,5]), as.numeric(m1$coefmat[6,5]), as.numeric(m1$coefmat[7,5]), a
s.numeric(m1$coefmat[8,5]), as.numeric(m1$coefmat[9,5]))
m2.e <- c(as.numeric(m2$coefmat[1,1]), as.numeric(m2$coefmat[2,1]), as.numeric(m2$coefmat[3,1]), as.numeric
(m2$coefmat[4,1]), as.numeric(m2$coefmat[5,1]), as.numeric(m2$coefmat[6,1]), as.numeric(m2$coefmat[7,1]), a
s.numeric(m2$coefmat[8,1]), as.numeric(m2$coefmat[9,1]))
m2.s <- c(as.numeric(m2$coefmat[1,2]), as.numeric(m2$coefmat[2,2]), as.numeric(m2$coefmat[3,2]), as.numeric
(m2$coefmat[4,2]), as.numeric(m2$coefmat[5,2]), as.numeric(m2$coefmat[6,2]), as.numeric(m2$coefmat[7,2]), a
s.numeric(m2$coefmat[8,2]), as.numeric(m2$coefmat[9,2]))
m2.t <- c(as.numeric(m2$coefmat[1,3]), as.numeric(m2$coefmat[2,3]), as.numeric(m2$coefmat[3,3]), as.numeric
(m2$coefmat[4,3]), as.numeric(m2$coefmat[5,3]), as.numeric(m2$coefmat[6,3]), as.numeric(m2$coefmat[7,3]), a
s.numeric(m2$coefmat[8,3]), as.numeric(m2$coefmat[9,3]))
m2.d <- c(as.numeric(m2$coefmat[1,4]), as.numeric(m2$coefmat[2,4]), as.numeric(m2$coefmat[3,4]), as.numeric
(m2$coefmat[4,4]), as.numeric(m2$coefmat[5,4]), as.numeric(m2$coefmat[6,4]), as.numeric(m2$coefmat[7,4]), a
s.numeric(m2$coefmat[8,4]), as.numeric(m2$coefmat[9,4]))
m2.p <- c(as.numeric(m2$coefmat[1,5]), as.numeric(m2$coefmat[2,5]), as.numeric(m2$coefmat[3,5]), as.numeric
(m2$coefmat[4,5]), as.numeric(m2$coefmat[5,5]), as.numeric(m2$coefmat[6,5]), as.numeric(m2$coefmat[7,5]), a
s.numeric(m2$coefmat[8,5]), as.numeric(m2$coefmat[9,5]))
m3.e <- c(as.numeric(m3$coefmat[1,1]), as.numeric(m3$coefmat[2,1]), as.numeric(m3$coefmat[3,1]), as.numeric
(m3$coefmat[4,1]), as.numeric(m3$coefmat[5,1]), as.numeric(m3$coefmat[6,1]), as.numeric(m3$coefmat[7,1]), a
s.numeric(m3$coefmat[8,1]), as.numeric(m3$coefmat[9,1]))
m3.s <- c(as.numeric(m3$coefmat[1,2]), as.numeric(m3$coefmat[2,2]), as.numeric(m3$coefmat[3,2]), as.numeric
(m3$coefmat[4,2]), as.numeric(m3$coefmat[5,2]), as.numeric(m3$coefmat[6,2]), as.numeric(m3$coefmat[7,2]), a
s.numeric(m3$coefmat[8,2]), as.numeric(m3$coefmat[9,2]))
m3.t <- c(as.numeric(m3$coefmat[1,3]), as.numeric(m3$coefmat[2,3]), as.numeric(m3$coefmat[3,3]), as.numeric
(m3$coefmat[4,3]), as.numeric(m3$coefmat[5,3]), as.numeric(m3$coefmat[6,3]), as.numeric(m3$coefmat[7,3]), a
s.numeric(m3$coefmat[8,3]), as.numeric(m3$coefmat[9,3]))
m3.d <- c(as.numeric(m3$coefmat[1,4]), as.numeric(m3$coefmat[2,4]), as.numeric(m3$coefmat[3,4]), as.numeric
(m3$coefmat[4,4]), as.numeric(m3$coefmat[5,4]), as.numeric(m3$coefmat[6,4]), as.numeric(m3$coefmat[7,4]), a
s.numeric(m3$coefmat[8,4]), as.numeric(m3$coefmat[9,4]))
m3.p <- c(as.numeric(m3$coefmat[1,5]), as.numeric(m3$coefmat[2,5]), as.numeric(m3$coefmat[3,5]), as.numeric
(m3$coefmat[4,5]), as.numeric(m3$coefmat[5,5]), as.numeric(m3$coefmat[6,5]), as.numeric(m3$coefmat[7,5]), a
s.numeric(m3$coefmat[8,5]), as.numeric(m3$coefmat[9,5]))
DATA <- data.frame(Variable, m1.e, m1.s, m1.t, m1.d, m1.p, m2.e, m2.s, m2.t, m2.d, m2.p, m3.e, m3.s, m3.t,
m3.d, m3.p)
write.csv(DATA,"Model 3 Results.csv", row.names = FALSE)
```

```
t1 <- waldTest(lm.sdf(read ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat, data =
unrwa), coefficients = 6:9)
t2 <- waldTest(lm.sdf(math ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat, data =
unrwa), coefficients = 6:9)
t3 <- waldTest(lm.sdf(scie ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat, data =
unrwa), coefficients = 6:9)
Variable <- c("r", "n", "X2", "df", "P")
m1.e <- c(as.numeric(m1$r.squared), as.numeric(m1$nUsed), as.numeric(t1$result$chi2[1]), as.numeric(t1$resu
lt$chi2[2]), as.numeric(t1$result$chi2[3]))
m2.e <- c(as.numeric(m2$r.squared), as.numeric(m2$nUsed), as.numeric(t2$result$chi2[1]), as.numeric(t2$resu
lt$chi2[2]), as.numeric(t2$result$chi2[3]))
m3.e <- c(as.numeric(m3$r.squared), as.numeric(m3$nUsed), as.numeric(t3$result$chi2[1]), as.numeric(t3$resu
lt$chi2[2]), as.numeric(t3$result$chi2[3]))
DATA <- data.frame(Variable, m1.e, m2.e,m3.e)
write.csv(DATA,"Model 3 Tests.csv", row.names = FALSE)

## 3.5: Examining model 4 ####
m1 <- summary(lm.sdf(read ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat + selsch
+ abgroup + studbeha + teacbeha, data = unrwa))
m2 <- summary(lm.sdf(math ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat + selsch
+ abgroup + studbeha + teacbeha, data = unrwa))
m3 <- summary(lm.sdf(scie ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat + selsch
+ abgroup + studbeha + teacbeha, data = unrwa))
Variable <- c("(Intercept)", "uasc", "age", "gender", "escs", "disclima", "studrel", "stimread", "strstrat"
, "selsch", "abgroup", "studbeha", "teacbeha")
m1.e <- c(as.numeric(m1$coefmat[1,1]), as.numeric(m1$coefmat[2,1]), as.numeric(m1$coefmat[3,1]), as.numeric
(m1$coefmat[4,1]), as.numeric(m1$coefmat[5,1]), as.numeric(m1$coefmat[6,1]), as.numeric(m1$coefmat[7,1]), a
s.numeric(m1$coefmat[8,1]), as.numeric(m1$coefmat[9,1]), as.numeric(m1$coefmat[10,1]), as.numeric(m1$coefma
t[11,1]), as.numeric(m1$coefmat[12,1]), as.numeric(m1$coefmat[13,1]))
m1.s <- c(as.numeric(m1$coefmat[1,2]), as.numeric(m1$coefmat[2,2]), as.numeric(m1$coefmat[3,2]), as.numeric
(m1$coefmat[4,2]), as.numeric(m1$coefmat[5,2]), as.numeric(m1$coefmat[6,2]), as.numeric(m1$coefmat[7,2]), a
s.numeric(m1$coefmat[8,2]), as.numeric(m1$coefmat[9,2]), as.numeric(m1$coefmat[10,2]), as.numeric(m1$coefma
t[11,2]), as.numeric(m1$coefmat[12,2]), as.numeric(m1$coefmat[13,2]))
m1.t <- c(as.numeric(m1$coefmat[1,3]), as.numeric(m1$coefmat[2,3]), as.numeric(m1$coefmat[3,3]), as.numeric
(m1$coefmat[4,3]), as.numeric(m1$coefmat[5,3]), as.numeric(m1$coefmat[6,3]), as.numeric(m1$coefmat[7,3]), a
s.numeric(m1$coefmat[8,3]), as.numeric(m1$coefmat[9,3]), as.numeric(m1$coefmat[10,3]), as.numeric(m1$coefma
```

```
t[11,3]), as.numeric(m1$coefmat[12,3]), as.numeric(m1$coefmat[13,3]))
m1.d <- c(as.numeric(m1$coefmat[1,4]), as.numeric(m1$coefmat[2,4]), as.numeric(m1$coefmat[3,4]), as.numeric
(m1$coefmat[4,4]), as.numeric(m1$coefmat[5,4]), as.numeric(m1$coefmat[6,4]), as.numeric(m1$coefmat[7,4]), a
s.numeric(m1$coefmat[8,4]), as.numeric(m1$coefmat[9,4]), as.numeric(m1$coefmat[10,4]), as.numeric(m1$coefma
t[11,4]), as.numeric(m1$coefmat[12,4]), as.numeric(m1$coefmat[13,4]))
m1.p <- c(as.numeric(m1$coefmat[1,5]), as.numeric(m1$coefmat[2,5]), as.numeric(m1$coefmat[3,5]), as.numeric
(m1$coefmat[4,5]), as.numeric(m1$coefmat[5,5]), as.numeric(m1$coefmat[6,5]), as.numeric(m1$coefmat[7,5]), a
s.numeric(m1$coefmat[8,5]), as.numeric(m1$coefmat[9,5]), as.numeric(m1$coefmat[10,5]), as.numeric(m1$coefma
t[11,5]), as.numeric(m1$coefmat[12,5]), as.numeric(m1$coefmat[13,5]))
m2.e <- c(as.numeric(m2$coefmat[1,1]), as.numeric(m2$coefmat[2,1]), as.numeric(m2$coefmat[3,1]), as.numeric
(m2$coefmat[4,1]), as.numeric(m2$coefmat[5,1]), as.numeric(m2$coefmat[6,1]), as.numeric(m2$coefmat[7,1]), a
s.numeric(m2$coefmat[8,1]), as.numeric(m2$coefmat[9,1]), as.numeric(m2$coefmat[10,1]), as.numeric(m2$coefma
t[11,1]), as.numeric(m2$coefmat[12,1]), as.numeric(m2$coefmat[13,1]))
m2.s <- c(as.numeric(m2$coefmat[1,2]), as.numeric(m2$coefmat[2,2]), as.numeric(m2$coefmat[3,2]), as.numeric
(m2$coefmat[4,2]), as.numeric(m2$coefmat[5,2]), as.numeric(m2$coefmat[6,2]), as.numeric(m2$coefmat[7,2]), a
s.numeric(m2$coefmat[8,2]), as.numeric(m2$coefmat[9,2]), as.numeric(m2$coefmat[10,2]), as.numeric(m2$coefma
t[11,2]), as.numeric(m2$coefmat[12,2]), as.numeric(m2$coefmat[13,2]))
m2.t <- c(as.numeric(m2$coefmat[1,3]), as.numeric(m2$coefmat[2,3]), as.numeric(m2$coefmat[3,3]), as.numeric
(m2$coefmat[4,3]), as.numeric(m2$coefmat[5,3]), as.numeric(m2$coefmat[6,3]), as.numeric(m2$coefmat[7,3]), a
s.numeric(m2$coefmat[8,3]), as.numeric(m2$coefmat[9,3]), as.numeric(m2$coefmat[10,3]), as.numeric(m2$coefma
t[11,3]), as.numeric(m2$coefmat[12,3]), as.numeric(m2$coefmat[13,3]))
m2.d <- c(as.numeric(m2$coefmat[1,4]), as.numeric(m2$coefmat[2,4]), as.numeric(m2$coefmat[3,4]), as.numeric
(m2$coefmat[4,4]), as.numeric(m2$coefmat[5,4]), as.numeric(m2$coefmat[6,4]), as.numeric(m2$coefmat[7,4]), a
s.numeric(m2$coefmat[8,4]), as.numeric(m2$coefmat[9,4]), as.numeric(m2$coefmat[10,4]), as.numeric(m2$coefma
t[11,4]), as.numeric(m2$coefmat[12,4]), as.numeric(m2$coefmat[13,4]))
m2.p <- c(as.numeric(m2$coefmat[1,5]), as.numeric(m2$coefmat[2,5]), as.numeric(m2$coefmat[3,5]), as.numeric
(m2$coefmat[4,5]), as.numeric(m2$coefmat[5,5]), as.numeric(m2$coefmat[6,5]), as.numeric(m2$coefmat[7,5]), a
s.numeric(m2$coefmat[8,5]), as.numeric(m2$coefmat[9,5]), as.numeric(m2$coefmat[10,5]), as.numeric(m2$coefma
t[11,5]), as.numeric(m2$coefmat[12,5]), as.numeric(m2$coefmat[13,5]))
m3.e <- c(as.numeric(m3$coefmat[1,1]), as.numeric(m3$coefmat[2,1]), as.numeric(m3$coefmat[3,1]), as.numeric
(m3$coefmat[4,1]), as.numeric(m3$coefmat[5,1]), as.numeric(m3$coefmat[6,1]), as.numeric(m3$coefmat[7,1]), a
s.numeric(m3$coefmat[8,1]), as.numeric(m3$coefmat[9,1]), as.numeric(m3$coefmat[10,1]), as.numeric(m3$coefma
t[11,1]), as.numeric(m3$coefmat[12,1]), as.numeric(m3$coefmat[13,1]))
m3.s <- c(as.numeric(m3$coefmat[1,2]), as.numeric(m3$coefmat[2,2]), as.numeric(m3$coefmat[3,2]), as.numeric
(m3$coefmat[4,2]), as.numeric(m3$coefmat[5,2]), as.numeric(m3$coefmat[6,2]), as.numeric(m3$coefmat[7,2]), a
s.numeric(m3$coefmat[8,2]), as.numeric(m3$coefmat[9,2]), as.numeric(m3$coefmat[10,2]), as.numeric(m3$coefma
```

```
t[11,2]), as.numeric(m3$coefmat[12,2]), as.numeric(m3$coefmat[13,2]))
m3.t <- c(as.numeric(m3$coefmat[1,3]), as.numeric(m3$coefmat[2,3]), as.numeric(m3$coefmat[3,3]), as.numeric
(m3$coefmat[4,3]), as.numeric(m3$coefmat[5,3]), as.numeric(m3$coefmat[6,3]), as.numeric(m3$coefmat[7,3]), a
s.numeric(m3$coefmat[8,3]), as.numeric(m3$coefmat[9,3]), as.numeric(m3$coefmat[10,3]), as.numeric(m3$coefma
t[11,3]), as.numeric(m3$coefmat[12,3]), as.numeric(m3$coefmat[13,3]))
m3.d <- c(as.numeric(m3$coefmat[1,4]), as.numeric(m3$coefmat[2,4]), as.numeric(m3$coefmat[3,4]), as.numeric
(m3$coefmat[4,4]), as.numeric(m3$coefmat[5,4]), as.numeric(m3$coefmat[6,4]), as.numeric(m3$coefmat[7,4]), a
s.numeric(m3$coefmat[8,4]), as.numeric(m3$coefmat[9,4]), as.numeric(m3$coefmat[10,4]), as.numeric(m3$coefma
t[11,4]), as.numeric(m3$coefmat[12,4]), as.numeric(m3$coefmat[13,4]))
m3.p <- c(as.numeric(m3$coefmat[1,5]), as.numeric(m3$coefmat[2,5]), as.numeric(m3$coefmat[3,5]), as.numeric
(m3$coefmat[4,5]), as.numeric(m3$coefmat[5,5]), as.numeric(m3$coefmat[6,5]), as.numeric(m3$coefmat[7,5]), a
s.numeric(m3$coefmat[8,5]), as.numeric(m3$coefmat[9,5]), as.numeric(m3$coefmat[10,5]), as.numeric(m3$coefma
t[11,5]), as.numeric(m3$coefmat[12,5]), as.numeric(m3$coefmat[13,5]))
DATA <- data.frame(Variable, m1.e, m1.s, m1.t, m1.d, m1.p, m2.e, m2.s, m2.t, m2.d, m2.p, m3.e, m3.s, m3.t,
m3.d, m3.p)
write.csv(DATA,"Model 4 Results.csv", row.names = FALSE)
t1 <- waldTest(lm.sdf(read ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat + selsch
+ abgroup + studbeha + teacbeha, data = unrwa), coefficients = 10:13)
t2 <- waldTest(lm.sdf(math ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat + selsch
+ abgroup + studbeha + teacbeha, data = unrwa), coefficients = 10:13)
t3 <- waldTest(lm.sdf(scie ~ uasc + age + gender + escs + disclima + studrel + stimread + strstrat + selsch
+ abgroup + studbeha + teacbeha, data = unrwa), coefficients = 10:13)
Variable <- c("r", "n", "X2", "df", "P")
m1.e <- c(as.numeric(m1$r.squared), as.numeric(m1$nUsed), as.numeric(t1$result$chi2[1]), as.numeric(t1$resu
lt$chi2[2]), as.numeric(t1$result$chi2[3]))
m2.e <- c(as.numeric(m2$r.squared), as.numeric(m2$nUsed), as.numeric(t2$result$chi2[1]), as.numeric(t2$resu
lt$chi2[2]), as.numeric(t2$result$chi2[3]))
m3.e <- c(as.numeric(m3$r.squared), as.numeric(m3$nUsed), as.numeric(t3$result$chi2[1]), as.numeric(t3$resu
lt$chi2[2]), as.numeric(t3$result$chi2[3]))
DATA <- data.frame(Variable, m1.e, m2.e,m3.e)
write.csv(DATA,"Model 4 Tests.csv", row.names = FALSE)

## 3.6: Examining model 5 ####
m1 <- summary(lm.sdf(read ~ uasc*age + uasc*gender + uasc*escs + uasc*disclima + uasc*studrel + uasc*stimre
ad + uasc*strstrat + uasc*selsch + uasc*abgroup + uasc*studbeha + uasc*teacbeha, data = unrwa))
m2 <- summary(lm.sdf(math ~ uasc*age + uasc*gender + uasc*escs + uasc*disclima + uasc*studrel + uasc*stimre
```

```
ad + uasc*strstrat + uasc*selsch + uasc*abgroup + uasc*studbeha + uasc*teacbeha, data = unrwa))
m3 <- summary(lm.sdf(scie ~ uasc*age + uasc*gender + uasc*escs + uasc*disclima + uasc*studrel + uasc*stimre
ad + uasc*strstrat + uasc*selsch + uasc*abgroup + uasc*studbeha + uasc*teacbeha, data = unrwa))
Variable <- c("(Intercept)", "uasc", "age", "gender", "escs", "disclima", "studrel", "stimread", "strstrat"
, "selsch", "abgroup", "studbeha", "teacbeha", "uasc*age", "uasc*gender", "uasc*escs", "uasc*disclima", "ua
sc*studrel", "uasc*stimread", "uasc*strstrat", "uasc*selsch", "uasc*abgroup", "uasc*studbeha", "uasc*teacbe
ha")
m1.e <- c(as.numeric(m1$coefmat[1,1]), as.numeric(m1$coefmat[2,1]), as.numeric(m1$coefmat[3,1]), as.numeric
(m1$coefmat[4,1]), as.numeric(m1$coefmat[5,1]), as.numeric(m1$coefmat[6,1]), as.numeric(m1$coefmat[7,1]), a
s.numeric(m1$coefmat[8,1]), as.numeric(m1$coefmat[9,1]), as.numeric(m1$coefmat[10,1]), as.numeric(m1$coefma
t[11,1]), as.numeric(m1$coefmat[12,1]), as.numeric(m1$coefmat[13,1]), as.numeric(m1$coefmat[14,1]), as.nume
ric(m1$coefmat[15,1]), as.numeric(m1$coefmat[16,1]), as.numeric(m1$coefmat[17,1]), as.numeric(m1$coefmat[18
,1]), as.numeric(m1$coefmat[19,1]), as.numeric(m1$coefmat[20,1]), as.numeric(m1$coefmat[21,1]), as.numeric(
m1$coefmat[22,1]), as.numeric(m1$coefmat[23,1]), as.numeric(m1$coefmat[24,1]))
m1.s <- c(as.numeric(m1$coefmat[1,2]), as.numeric(m1$coefmat[2,2]), as.numeric(m1$coefmat[3,2]), as.numeric
(m1$coefmat[4,2]), as.numeric(m1$coefmat[5,2]), as.numeric(m1$coefmat[6,2]), as.numeric(m1$coefmat[7,2]), a
s.numeric(m1$coefmat[8,2]), as.numeric(m1$coefmat[9,2]), as.numeric(m1$coefmat[10,2]), as.numeric(m1$coefma
t[11,2]), as.numeric(m1$coefmat[12,2]), as.numeric(m1$coefmat[13,2]), as.numeric(m1$coefmat[14,2]), as.nume
ric(m1$coefmat[15,2]), as.numeric(m1$coefmat[16,2]), as.numeric(m1$coefmat[17,2]), as.numeric(m1$coefmat[18
,2]), as.numeric(m1$coefmat[19,2]), as.numeric(m1$coefmat[20,2]), as.numeric(m1$coefmat[21,2]), as.numeric(
m1$coefmat[22,2]), as.numeric(m1$coefmat[23,2]), as.numeric(m1$coefmat[24,2]))
m1.t <- c(as.numeric(m1$coefmat[1,3]), as.numeric(m1$coefmat[2,3]), as.numeric(m1$coefmat[3,3]), as.numeric
(m1$coefmat[4,3]), as.numeric(m1$coefmat[5,3]), as.numeric(m1$coefmat[6,3]), as.numeric(m1$coefmat[7,3]), a
s.numeric(m1$coefmat[8,3]), as.numeric(m1$coefmat[9,3]), as.numeric(m1$coefmat[10,3]), as.numeric(m1$coefma
t[11,3]), as.numeric(m1$coefmat[12,3]), as.numeric(m1$coefmat[13,3]), as.numeric(m1$coefmat[14,3]), as.nume
ric(m1$coefmat[15,3]), as.numeric(m1$coefmat[16,3]), as.numeric(m1$coefmat[17,3]), as.numeric(m1$coefmat[18
,3]), as.numeric(m1$coefmat[19,3]), as.numeric(m1$coefmat[20,3]), as.numeric(m1$coefmat[21,3]), as.numeric(
m1$coefmat[22,3]), as.numeric(m1$coefmat[23,3]), as.numeric(m1$coefmat[24,3]))
m1.d <- c(as.numeric(m1$coefmat[1,4]), as.numeric(m1$coefmat[2,4]), as.numeric(m1$coefmat[3,4]), as.numeric
(m1$coefmat[4,4]), as.numeric(m1$coefmat[5,4]), as.numeric(m1$coefmat[6,4]), as.numeric(m1$coefmat[7,4]), a
s.numeric(m1$coefmat[8,4]), as.numeric(m1$coefmat[9,4]), as.numeric(m1$coefmat[10,4]), as.numeric(m1$coefma
t[11,4]), as.numeric(m1$coefmat[12,4]), as.numeric(m1$coefmat[13,4]), as.numeric(m1$coefmat[14,4]), as.nume
ric(m1$coefmat[15,4]), as.numeric(m1$coefmat[16,4]), as.numeric(m1$coefmat[17,4]), as.numeric(m1$coefmat[18
,4]), as.numeric(m1$coefmat[19,4]), as.numeric(m1$coefmat[20,4]), as.numeric(m1$coefmat[21,4]), as.numeric(
m1$coefmat[22,4]), as.numeric(m1$coefmat[23,4]), as.numeric(m1$coefmat[24,4]))
m1.p <- c(as.numeric(m1$coefmat[1,5]), as.numeric(m1$coefmat[2,5]), as.numeric(m1$coefmat[3,5]), as.numeric
```

```
(m1$coefmat[4,5]), as.numeric(m1$coefmat[5,5]), as.numeric(m1$coefmat[6,5]), as.numeric(m1$coefmat[7,5]), a
s.numeric(m1$coefmat[8,5]), as.numeric(m1$coefmat[9,5]), as.numeric(m1$coefmat[10,5]), as.numeric(m1$coefma
t[11,5]), as.numeric(m1$coefmat[12,5]), as.numeric(m1$coefmat[13,5]), as.numeric(m1$coefmat[14,5]), as.nume
ric(m1$coefmat[15,5]), as.numeric(m1$coefmat[16,5]), as.numeric(m1$coefmat[17,5]), as.numeric(m1$coefmat[18
,5]), as.numeric(m1$coefmat[19,5]), as.numeric(m1$coefmat[20,5]), as.numeric(m1$coefmat[21,5]), as.numeric(
m1$coefmat[22,5]), as.numeric(m1$coefmat[23,5]), as.numeric(m1$coefmat[24,5]))
m2.e <- c(as.numeric(m2$coefmat[1,1]), as.numeric(m2$coefmat[2,1]), as.numeric(m2$coefmat[3,1]), as.numeric
(m2$coefmat[4,1]), as.numeric(m2$coefmat[5,1]), as.numeric(m2$coefmat[6,1]), as.numeric(m2$coefmat[7,1]), a
s.numeric(m2$coefmat[8,1]), as.numeric(m2$coefmat[9,1]), as.numeric(m2$coefmat[10,1]), as.numeric(m2$coefma
t[11,1]), as.numeric(m2$coefmat[12,1]), as.numeric(m2$coefmat[13,1]), as.numeric(m2$coefmat[14,1]), as.nume
ric(m2$coefmat[15,1]), as.numeric(m2$coefmat[16,1]), as.numeric(m2$coefmat[17,1]), as.numeric(m2$coefmat[18
,1]), as.numeric(m2$coefmat[19,1]), as.numeric(m2$coefmat[20,1]), as.numeric(m2$coefmat[21,1]), as.numeric(
m2$coefmat[22,1]), as.numeric(m2$coefmat[23,1]), as.numeric(m2$coefmat[24,1]))
m2.s <- c(as.numeric(m2$coefmat[1,2]), as.numeric(m2$coefmat[2,2]), as.numeric(m2$coefmat[3,2]), as.numeric
(m2$coefmat[4,2]), as.numeric(m2$coefmat[5,2]), as.numeric(m2$coefmat[6,2]), as.numeric(m2$coefmat[7,2]), a
s.numeric(m2$coefmat[8,2]), as.numeric(m2$coefmat[9,2]), as.numeric(m2$coefmat[10,2]), as.numeric(m2$coefma
t[11,2]), as.numeric(m2$coefmat[12,2]), as.numeric(m2$coefmat[13,2]), as.numeric(m2$coefmat[14,2]), as.nume
ric(m2$coefmat[15,2]), as.numeric(m2$coefmat[16,2]), as.numeric(m2$coefmat[17,2]), as.numeric(m2$coefmat[18
,2]), as.numeric(m2$coefmat[19,2]), as.numeric(m2$coefmat[20,2]), as.numeric(m2$coefmat[21,2]), as.numeric(
m2$coefmat[22,2]), as.numeric(m2$coefmat[23,2]), as.numeric(m2$coefmat[24,2]))
m2.t <- c(as.numeric(m2$coefmat[1,3]), as.numeric(m2$coefmat[2,3]), as.numeric(m2$coefmat[3,3]), as.numeric
(m2$coefmat[4,3]), as.numeric(m2$coefmat[5,3]), as.numeric(m2$coefmat[6,3]), as.numeric(m2$coefmat[7,3]), a
s.numeric(m2$coefmat[8,3]), as.numeric(m2$coefmat[9,3]), as.numeric(m2$coefmat[10,3]), as.numeric(m2$coefma
t[11,3]), as.numeric(m2$coefmat[12,3]), as.numeric(m2$coefmat[13,3]), as.numeric(m2$coefmat[14,3]), as.nume
ric(m2$coefmat[15,3]), as.numeric(m2$coefmat[16,3]), as.numeric(m2$coefmat[17,3]), as.numeric(m2$coefmat[18
,3]), as.numeric(m2$coefmat[19,3]), as.numeric(m2$coefmat[20,3]), as.numeric(m2$coefmat[21,3]), as.numeric(
m2$coefmat[22,3]), as.numeric(m2$coefmat[23,3]), as.numeric(m2$coefmat[24,3]))
m2.d <- c(as.numeric(m2$coefmat[1,4]), as.numeric(m2$coefmat[2,4]), as.numeric(m2$coefmat[3,4]), as.numeric
(m2$coefmat[4,4]), as.numeric(m2$coefmat[5,4]), as.numeric(m2$coefmat[6,4]), as.numeric(m2$coefmat[7,4]), a
s.numeric(m2$coefmat[8,4]), as.numeric(m2$coefmat[9,4]), as.numeric(m2$coefmat[10,4]), as.numeric(m2$coefma
t[11,4]), as.numeric(m2$coefmat[12,4]), as.numeric(m2$coefmat[13,4]), as.numeric(m2$coefmat[14,4]), as.nume
ric(m2$coefmat[15,4]), as.numeric(m2$coefmat[16,4]), as.numeric(m2$coefmat[17,4]), as.numeric(m2$coefmat[18
,4]), as.numeric(m2$coefmat[19,4]), as.numeric(m2$coefmat[20,4]), as.numeric(m2$coefmat[21,4]), as.numeric(
m2$coefmat[22,4]), as.numeric(m2$coefmat[23,4]), as.numeric(m2$coefmat[24,4]))
m2.p <- c(as.numeric(m2$coefmat[1,5]), as.numeric(m2$coefmat[2,5]), as.numeric(m2$coefmat[3,5]), as.numeric
(m2$coefmat[4,5]), as.numeric(m2$coefmat[5,5]), as.numeric(m2$coefmat[6,5]), as.numeric(m2$coefmat[7,5]), a
```

```
s.numeric(m2$coefmat[8,5]), as.numeric(m2$coefmat[9,5]), as.numeric(m2$coefmat[10,5]), as.numeric(m2$coefma
t[11,5]), as.numeric(m2$coefmat[12,5]), as.numeric(m2$coefmat[13,5]), as.numeric(m2$coefmat[14,5]), as.nume
ric(m2$coefmat[15,5]), as.numeric(m2$coefmat[16,5]), as.numeric(m2$coefmat[17,5]), as.numeric(m2$coefmat[18
,5]), as.numeric(m2$coefmat[19,5]), as.numeric(m2$coefmat[20,5]), as.numeric(m2$coefmat[21,5]), as.numeric(
m2$coefmat[22,5]), as.numeric(m2$coefmat[23,5]), as.numeric(m2$coefmat[24,5]))
m3.e <- c(as.numeric(m3$coefmat[1,1]), as.numeric(m3$coefmat[2,1]), as.numeric(m3$coefmat[3,1]), as.numeric
(m3$coefmat[4,1]), as.numeric(m3$coefmat[5,1]), as.numeric(m3$coefmat[6,1]), as.numeric(m3$coefmat[7,1]), a
s.numeric(m3$coefmat[8,1]), as.numeric(m3$coefmat[9,1]), as.numeric(m3$coefmat[10,1]), as.numeric(m3$coefma
t[11,1]), as.numeric(m3$coefmat[12,1]), as.numeric(m3$coefmat[13,1]), as.numeric(m3$coefmat[14,1]), as.nume
ric(m3$coefmat[15,1]), as.numeric(m3$coefmat[16,1]), as.numeric(m3$coefmat[17,1]), as.numeric(m3$coefmat[18
,1]), as.numeric(m3$coefmat[19,1]), as.numeric(m3$coefmat[20,1]), as.numeric(m3$coefmat[21,1]), as.numeric(
m3$coefmat[22,1]), as.numeric(m3$coefmat[23,1]), as.numeric(m3$coefmat[24,1]))
m3.s <- c(as.numeric(m3$coefmat[1,2]), as.numeric(m3$coefmat[2,2]), as.numeric(m3$coefmat[3,2]), as.numeric
(m3$coefmat[4,2]), as.numeric(m3$coefmat[5,2]), as.numeric(m3$coefmat[6,2]), as.numeric(m3$coefmat[7,2]), a
s.numeric(m3$coefmat[8,2]), as.numeric(m3$coefmat[9,2]), as.numeric(m3$coefmat[10,2]), as.numeric(m3$coefma
t[11,2]), as.numeric(m3$coefmat[12,2]), as.numeric(m3$coefmat[13,2]), as.numeric(m3$coefmat[14,2]), as.nume
ric(m3$coefmat[15,2]), as.numeric(m3$coefmat[16,2]), as.numeric(m3$coefmat[17,2]), as.numeric(m3$coefmat[18
,2]), as.numeric(m3$coefmat[19,2]), as.numeric(m3$coefmat[20,2]), as.numeric(m3$coefmat[21,2]), as.numeric(
m3$coefmat[22,2]), as.numeric(m3$coefmat[23,2]), as.numeric(m3$coefmat[24,2]))
m3.t <- c(as.numeric(m3$coefmat[1,3]), as.numeric(m3$coefmat[2,3]), as.numeric(m3$coefmat[3,3]), as.numeric
(m3$coefmat[4,3]), as.numeric(m3$coefmat[5,3]), as.numeric(m3$coefmat[6,3]), as.numeric(m3$coefmat[7,3]), a
s.numeric(m3$coefmat[8,3]), as.numeric(m3$coefmat[9,3]), as.numeric(m3$coefmat[10,3]), as.numeric(m3$coefma
t[11,3]), as.numeric(m3$coefmat[12,3]), as.numeric(m3$coefmat[13,3]), as.numeric(m3$coefmat[14,3]), as.nume
ric(m3$coefmat[15,3]), as.numeric(m3$coefmat[16,3]), as.numeric(m3$coefmat[17,3]), as.numeric(m3$coefmat[18
,3]), as.numeric(m3$coefmat[19,3]), as.numeric(m3$coefmat[20,3]), as.numeric(m3$coefmat[21,3]), as.numeric(
m3$coefmat[22,3]), as.numeric(m3$coefmat[23,3]), as.numeric(m3$coefmat[24,3]))
m3.d <- c(as.numeric(m3$coefmat[1,4]), as.numeric(m3$coefmat[2,4]), as.numeric(m3$coefmat[3,4]), as.numeric
(m3$coefmat[4,4]), as.numeric(m3$coefmat[5,4]), as.numeric(m3$coefmat[6,4]), as.numeric(m3$coefmat[7,4]), a
s.numeric(m3$coefmat[8,4]), as.numeric(m3$coefmat[9,4]), as.numeric(m3$coefmat[10,4]), as.numeric(m3$coefma
t[11,4]), as.numeric(m3$coefmat[12,4]), as.numeric(m3$coefmat[13,4]), as.numeric(m3$coefmat[14,4]), as.nume
ric(m3$coefmat[15,4]), as.numeric(m3$coefmat[16,4]), as.numeric(m3$coefmat[17,4]), as.numeric(m3$coefmat[18
,4]), as.numeric(m3$coefmat[19,4]), as.numeric(m3$coefmat[20,4]), as.numeric(m3$coefmat[21,4]), as.numeric(
m3$coefmat[22,4]), as.numeric(m3$coefmat[23,4]), as.numeric(m3$coefmat[24,4]))
m3.p <- c(as.numeric(m3$coefmat[1,5]), as.numeric(m3$coefmat[2,5]), as.numeric(m3$coefmat[3,5]), as.numeric
(m3$coefmat[4,5]), as.numeric(m3$coefmat[5,5]), as.numeric(m3$coefmat[6,5]), as.numeric(m3$coefmat[7,5]), a
s.numeric(m3$coefmat[8,5]), as.numeric(m3$coefmat[9,5]), as.numeric(m3$coefmat[10,5]), as.numeric(m3$coefma
```

```
t[11,5]), as.numeric(m3$coefmat[12,5]), as.numeric(m3$coefmat[13,5]), as.numeric(m3$coefmat[14,5]), as.nume
ric(m3$coefmat[15,5]), as.numeric(m3$coefmat[16,5]), as.numeric(m3$coefmat[17,5]), as.numeric(m3$coefmat[18
,5]), as.numeric(m3$coefmat[19,5]), as.numeric(m3$coefmat[20,5]), as.numeric(m3$coefmat[21,5]), as.numeric(
m3$coefmat[22,5]), as.numeric(m3$coefmat[23,5]), as.numeric(m3$coefmat[24,5]))
DATA <- data.frame(Variable, m1.e, m1.s, m1.t, m1.d, m1.p, m2.e, m2.s, m2.t, m2.d, m2.p, m3.e, m3.s, m3.t,
m3.d, m3.p)
write.csv(DATA,"Model 5 Results.csv", row.names = FALSE)
t1 <- waldTest(lm.sdf(read ~ uasc*age + uasc*gender + uasc*escs + uasc*disclima + uasc*studrel + uasc*stimr
ead + uasc*strstrat + uasc*selsch + uasc*abgroup + uasc*studbeha + uasc*teacbeha, data = unrwa), coefficien
ts = 14:24)
t2 <- waldTest(lm.sdf(math ~ uasc*age + uasc*gender + uasc*escs + uasc*disclima + uasc*studrel + uasc*stimr
ead + uasc*strstrat + uasc*selsch + uasc*abgroup + uasc*studbeha + uasc*teacbeha, data = unrwa), coefficien
ts = 14:24)
t3 <- waldTest(lm.sdf(scie ~ uasc*age + uasc*gender + uasc*escs + uasc*disclima + uasc*studrel + uasc*stimr
ead + uasc*strstrat + uasc*selsch + uasc*abgroup + uasc*studbeha + uasc*teacbeha, data = unrwa), coefficien
ts = 14:24)
Variable <- c("r", "n", "X2", "df", "P")
m1.e <- c(as.numeric(m1$r.squared), as.numeric(m1$nUsed), as.numeric(t1$result$chi2[1]), as.numeric(t1$resu
lt$chi2[2]), as.numeric(t1$result$chi2[3]))
m2.e <- c(as.numeric(m2$r.squared), as.numeric(m2$nUsed), as.numeric(t2$result$chi2[1]), as.numeric(t2$resu
lt$chi2[2]), as.numeric(t2$result$chi2[3]))
m3.e <- c(as.numeric(m3$r.squared), as.numeric(m3$nUsed), as.numeric(t3$result$chi2[1]), as.numeric(t3$resu
lt$chi2[2]), as.numeric(t3$result$chi2[3]))
DATA <- data.frame(Variable, m1.e, m2.e,m3.e)
write.csv(DATA,"Model 5 Tests.csv", row.names = FALSE)
rm(Variable, m1.e, m1.s, m1.t, m1.d, m1.p, m1.icc, m1.n1, m1.n2, m2.e, m2.s, m2.t, m2.d, m2.p, m2.icc, m2.n
1, m2.n2, m3.e, m3.s, m3.t, m3.d, m3.p, m3.icc, m3.n1, m3.n2, DATA, m1, m2, m3, t1, t2, t3)

# Step 4: Regression Plots ####

## 4.1: Preparing the data ####
unrwa.sub <- subset(unrwa1, select = c("SCHOOLID", "STIDSTD", "PV1READ", "PV2READ", "PV3READ", "PV4READ", "
PV5READ", "PV1MATH", "PV2MATH", "PV3MATH", "PV4MATH", "PV5MATH", "PV1SCIE", "PV2SCIE", "PV3SCIE", "PV4SCIE"
, "PV5SCIE", "uasc", "AGE", "GENDER", "ESCS", "DISCLIMA", "STUDREL", "STIMREAD", "STRSTRAT", "SELSCH", "ABG
ROUP", "STUDBEHA", "TEACBEHA"))
names(unrwa.sub) <- tolower(names(unrwa.sub))
```

```
unrwa.sub$uasc <- as.factor(ifelse(unrwa.sub$uasc == 1, "UASC", "Non-UASC"))

## 4.2: Plotting main effects ####
p1 <- unrwa.sub %>% ggplot() + aes(x = gender, y = (pv1read+pv2read+pv3read+pv4read+pv5read)/5, group = uas
c) + geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Reading achievement", x = "Gende
r") + ggtitle("a)")
p2 <- unrwa.sub %>% ggplot() + aes(x = escs, y = (pv1read+pv2read+pv3read+pv4read+pv5read)/5, group = uasc)
+ geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Reading achievement", x = "Economic
, social, and cultural status") + ggtitle("b)")
p3 <- unrwa.sub %>% ggplot() + aes(x = studrel, y = (pv1read+pv2read+pv3read+pv4read+pv5read)/5, group = ua
sc) + geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Reading achievement", x = "Teac
her-student relations") + ggtitle("c)")
p4 <- unrwa.sub %>% ggplot() + aes(x = escs, y = (pv1math+pv2math+pv3math+pv4math+pv5math)/5, group = uasc)
+ geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Mathematical achievement", x = "Eco
nomic, social, and cultural status") + ggtitle("d)")
p5 <- unrwa.sub %>% ggplot() + aes(x = disclima, y = (pv1math+pv2math+pv3math+pv4math+pv5math)/5, group = u
asc) + geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Mathematical achievement", x =
"Class disciplinary climate") + ggtitle("e)")
p6 <- unrwa.sub %>% ggplot() + aes(x = studrel, y = (pv1math+pv2math+pv3math+pv4math+pv5math)/5, group = ua
sc) + geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Mathematical achievement", x =
"Teacher-student relations") + ggtitle("f)")
p7 <- unrwa.sub %>% ggplot() + aes(x = abgroup, y = (pv1math+pv2math+pv3math+pv4math+pv5math)/5, group = ua
sc) + geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Mathematical achievement", x =
"School ability grouping") + ggtitle("g)")
p8 <- unrwa.sub %>% ggplot() + aes(x = escs, y = (pv1scie+pv2scie+pv3scie+pv4scie+pv5scie)/5, group = uasc)
+ geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Scientific achievement", x = "Econo
mic, social, and cultural status") + ggtitle("h)")
p9 <- unrwa.sub %>% ggplot() + aes(x = studrel, y = (pv1scie+pv2scie+pv3scie+pv4scie+pv5scie)/5, group = ua
sc) + geom_smooth(method = "lm", se = FALSE) + facet_wrap(~uasc) + labs(y= "Scientific achievement", x = "T
eacher-student relations") + ggtitle("i)")
grid.arrange(p1, p2, p3, p4, p5, p6, p7, p8, p9, nrow = 3)
dev.print(svg, file="Main Effects Plots.svg", width = 10, height = 8)

## 4.3: Plotting interaction effects ####
p1 <- unrwa.sub %>% ggplot() + aes(x = strstrat, color = uasc, group = uasc, y = (pv1read+pv2read+pv3read+p
v4read+pv5read)/5) + geom_smooth(method = "lm", se = FALSE) + labs(y= "Reading achievement", x = "Teacher U
```

```
se of Structuring & Scaffolding Strategies") + theme(legend.title=element_blank(), legend.position="bottom"
) + ggtitle("a) Protective-Enhancing Interaction")
p2 <- unrwa.sub %>% ggplot() + aes(x = abgroup, color = uasc, group = uasc, y = (pv1read+pv2read+pv3read+pv
4read+pv5read)/5) + stat_summary(fun.y = mean, geom = "point") + stat_summary(fun.y = mean, geom = "line")
+ labs(y= "Reading achievement", x = "School Ability Grouping") + theme(legend.title=element_blank(), legen
d.position="bottom") + ggtitle("b) Protective-Stabilizing Interaction")
p3 <- unrwa.sub %>% ggplot() + aes(x = selsch, color = uasc, group = uasc, y = (pv1scie+pv2scie+pv3scie+pv4
scie+pv5scie)/5) + stat_summary(fun.y = mean, geom = "point") + stat_summary(fun.y = mean, geom = "line") +
labs(y= "Scientific achievement", x = "School Academic Selectivity") + theme(legend.title=element_blank(),
legend.position="bottom") + ggtitle("c) Vulnerable-Reactive Interaction")
p4 <- unrwa.sub %>% ggplot() + aes(x = abgroup, color = uasc, group = uasc, y = (pv1scie+pv2scie+pv3scie+pv
4scie+pv5scie)/5) + stat_summary(fun.y = mean, geom = "point") + stat_summary(fun.y = mean, geom = "line")
+ labs(y= "Scientific achievement", x = "School Ability Grouping") + theme(legend.title=element_blank(), le
gend.position="bottom") + ggtitle("d) Protective-Stabilizing Interaction")
grid.arrange(p1, p2, p3, p4, nrow = 2)
dev.print(svg, file="Interaction Effects Plots.svg", width = 10, height = 8)
rm(p1, p2, p3, p4, p5, p6, p7, p8, p9)
```

Appendix D1. *Focus group schedule for education stakeholders*.

Notes

- Focus group involved education stakeholders (e.g. legal guardians, social workers, cultural mediators, teachers, and refugee education coordinators)
- Focus group took place online
- It was stressed that responses are pseudonymous and will not be passed on to their personal or professional affiliations. Responses were, however, shared in front of a group, and so was not confidential in front of the other participants. In this case, it was stressed that confidentiality is needed between participants – that information shared during the session should not be shared outside in the focus group. This was reflected in the oral stakeholder consent.
- It was be audio-recorded after participants gave permission; written notes were also be taken.

Pre-discussion

- *Reintroduce myself*
- *Go over the oral information and consent for education stakeholders one more time.*

Warm-up questions

Goal: To explore participants' perceptions on the resilience factors and risk factors affecting UASCs in education, and how youth navigate situations of risk to achieve educational resilience.

1. What does an unaccompanied refugee youth need to know to grow up well here?
2. How do you describe unaccompanied refugee youth who grow up well here despite the many problems they face?
3. What does it mean for unaccompanied refugee youth and those around them (their chosen family, community, etc…) when bad things happen to them?
4. What kinds of things are most challenging for unaccompanied refugee youth growing up here?
5. What does an unaccompanied refugee youth do when they face difficulties in your life?
6. What does being healthy mean to unaccompanied refugee youth and those around them (their chosen family, community, etc…)?
7. What do unaccompanied refugee youth do to keep healthy? (Mentally, physically, emotionally, or spiritually)

Contextualize the CYRM Questionnaire

Goal: To contextualize the CYRM questionnaire and ensure it is culturally sensitive to the topic of the educational resilience of UASCs in Greece.

- *Introduce the CYRM questionnaire and state its purpose as a research instrument to be used with unaccompanied refugee youth*
- What do you think of the [*CYRM item*]? What needs to be adjusted in order to make it contextualized to the educational resilience context of unaccompanied refugee youth in Greece?

Contextualize the Semi-Structured Interview Schedule

Goal: To contextualize the interview schedule and ensure it is culturally sensitive to the topic of the educational resilience of UASCs in Greece.

- *Introduce semi-structured interview schedule and state its purpose as a research instrument to be used with unaccompanied refugee youth*
- What do you think of the [*Semi-structured interview question*]? What needs to be adjusted in order to make it contextualized to the educational resilience context of unaccompanied refugee youth in Greece?

Appendix D2. *Child & Youth Resilience Measure (CYRM) questionnaire*.

Child & Youth Resilience Measure[1]				
To what extent do the following statements apply to you? There are no right or wrong answers.		No [1]	Sometimes [2]	Yes [3]
1	I get along with people around me	1	2	3
2	Getting an education is important to me	1	2	3
3	I know how to behave/act in different situations (such as school, home, and work)	1	2	3
4	My caregiver(s) really look out for me	1	2	3
5	My caregiver(s) know a lot about me (for example, who my friends are, what I like to do)	1	2	3
6	If I am hungry, there is enough to eat	1	2	3
7	People like to spend time with me	1	2	3
8	I talk to my caregiver(s) about how I feel (for example when I am hurt or sad)	1	2	3
9	I feel supported by my friends	1	2	3
10	I feel that I belong/belonged at my school	1	2	3
11	My caregiver(s) care about me when times are hard (for example if I am sick or have done something wrong)	1	2	3

[1] Adapted from Jefferies, P., McGarrigle, L., & Ungar, M. (2018). The CYRM-R: a Rasch-validated revision of the Child and Youth Resilience Measure. *Journal of Evidence-Informed Social Work*, 1-24. https://doi.org/10.1080/23761407.2018.1548403

12	My friends care about me when times are hard (for example if I am sick or have done something wrong)	1	2	3
13	I am treated fairly in my community	1	2	3
14	I have chances to show others that I am growing up and that I can do things by myself	1	2	3
15	I feel safe when I am with my caregiver(s)	1	2	3
16	I have chances to learn things that will be useful when I am older (like cooking, working, and helping others)	1	2	3
17	I like the way my caregiver(s) celebrates things (like holidays or learning about my culture)	1	2	3

Appendix D3. *Semi-structured interview schedule for youth participants*.

Notes

- This schedule is for unaccompanied refugee youth in Greece aged (16-23)
- Interview either occurred at one of the offices of the NGO that nominated the youth participant in Greece or online, in agreement with the participant.
- It is semi-structured and was adapted to the individual (i.e. their role) and context; for example, by referencing recent government press releases, news articles, or events during observations
- It was audio-recorded after participant gave permission; written notes were also taken
- For youth participants aged 16-17, their legal guardian, social worker, or NGO worker was present

Pre-discussion

- *Reintroduce myself*
- *Go over the oral information and consent/assent for youth one more time.*

Warm-up question

Goal: To allow the participant to introduce themselves in their own words

1. Now that I've introduced myself, feel free to introduce yourself to me if you'd like. What are you doing now? What have you been doing lately?

Main questions

Goal: To explore participants' perceptions on the resilience factors and risk factors affecting unaccompanied refugee youth in education, and how youth navigate situations of risk to achieve educational resilience.

1. I would like you to introduce yourself to me. Tell me who you are and tell me what your educational journey looked like, from the moment you arrived in Greece until now.
2. What were your educational challenges in Greece and how did you deal with these challenges?
3. Who helped you the most in your education and schooling in Greece?
   (Probe: how did your teachers help you? other school staff? guardians or social workers? accommodation? classmates at school? friends outside of school? community? anyone else in the community (e.g. NGOs, community centres)?)
4. What has it been like going to school in Greece as someone from another culture? What's the best part? What's the most difficult part?
   (Probe: Has anyone ever treated you differently because you are from [country name]? Why do you think it happened?)
5. How did the COVID-19 pandemic impact your education?
6. What advice would you give another youth about adapting to education in Greece?
7. What are your future educational goals and the next steps in your educational journey?

Appendix D4. *Final codebook with illustrative quotes.*

System (Selective Code)	Domain (Axial Code)	Factor (Open Code)	Illustrative Quote
Individual	Age	Higher age at admission to school	Actually, it took a bit time, around 8 months or more to register me into a real school. First, I went to some Greek classes in order to learn the language, and then they registered me for middle school. (IDI 01, Afghanistan, 18, Boy)
		Lower age at admission to school	I started applying for the course, but I wasn't getting any answer from them. I was getting disappointed, so I decided to go to the office and talk to them. So I went there. They said it's like the course is only for people up like people bigger, like 16 years old. And I was 13. Yes, that was another challenge. (IDI 30, Afghanistan, 16, Boy)
	Gender	Gendered experiences as girls	Another issue is that, because in Iran the school of girl and boy are separated. Here, at the beginning it was difficult for me to feel comfortable with boy at the school. So now I'm OK. Now we don't have problem. But at the beginning, it was a little bit challenging for me to communicate with them, to talk to them, to accept them between each other. (IDI 24, Iran, 16, Girl)
		Gendered experiences as boys	Actually, we couldn't communicate with different cultures. But the place that we used to go to school in [Greece], girls and boys were separated. So, it was weird for us for the first day, but the second day, it was simple. And I really liked it, for example, when we played volleyball. We made teams - boys and girls all together - we made teams and we played. (IDI 04, Afghanistan, 17, Boy)
	Prior education status	Negative prior education	I did not have any educational experience … In Afghanistan, it was much harder. The entire situation was hard. I studied until the 6th grade. (IDI 13, Afghanistan, 17, Girl)
		Positive prior education	There are a lot of people in organizations, actually, that would treat us like shit. Not everybody. Some people are good with us. But you do have racist characters … I have my education from my home that I don't fight and I don't

			really argue with people, so when I understand that somebody is racist, I prefer to be reserved to myself and just observe this person doing whatever he wants to do. (IDI 07, DR Congo, 17, Boy)
	Health status	Poor physical and mental health	My difficulty was motivation for me in order to change myself. For example, when I had the medical problem, medical issue, and I see that, well, for example, I couldn't ask them 'where's this place?' By searching around it is very difficult. I was saying that, OK, you have to find a way, you have to study, you have to learn. If you don't learn the language, the Greek government will not ask you 'it was my problem that I really didn't offer you a class'. (IDI 22, Afghanistan, 21, Girl)
'Home'	Next of kin	Unsupportive next of kin	In reality, my father is in Germany. He was saying, "Come to Germany and study here." He was saying, "In Germany, you doesn't need the Greek language. What do you need to do it, Greek language?" Still he is saying me. Even if I tell him I don't want to study, he will not say no. (IDI 21, Afghanistan, 16, Boy)
		Supportive next of kin	My cousin, who's my only relative here ... Well, I was so down when I came here. He was the only person who really motivated me. He doesn't have any papers, but still, he is happy and working so hard. He always tells me, 'You are just 16. Come on, man. You can do it. You can make it. Learn the language and a whole new life is going to be yours'. (IDI 02, Afghanistan, 16, Boy)
	Residential Accommodation	Poor camp accommodation	From the moment that I came to Greece, they took me to a camp. I was there for around 3-4 months and, actually, the situation inside the camp wasn't really good and we didn't have any chance to learn anything. (IDI 02, Afghanistan, 16, Boy)
		Poor residential care	Well, I was so down when I came here. He was the only person who really motivated me. He doesn't have any papers, but still, he is happy and working so hard. He always tells me, 'You are just 16. Come on, man. You can do it. You can make it. Learn the language and a whole new life is going to be yours'. (IDI 07, DR Congo, 17, Boy)

		Quality residential care	Sometimes I was also, 'Oh I don't want to go to school', but they were always there to push us to go to school. So I think they were there to motivate us to go to school. And if we tell them we a problem with a particular class, they would try to find people that are good at this subject, and these people would come to support us once or twice per week at the shelter. (IDI 11, Guinea, 22, Boy)
	Social workers and accommodation staff	Unsupportive social workers	The social worker said they can help me only when I have something for a governmental office. For example, if I need to book some appointment for a hospital or for other things, they book appointments for me. [*Do they help you with anything else when it comes to school or education?*] No, they only they told us, 'We must follow the rules. It's not in my hands. If I will have to help you, I will have to speak to my boss. Only then, I can come'. (IDI 15, Afghanistan, 18, Boy)
		Supportive social workers	They are helping me in different ways, like they care about my school. They're telling me, 'Ok, go to school. Don't be late in the morning'. They are talking to my principal at school, to know about my situation. They're asking me if I need anything about my lessons if I need an extra teacher in order to prepare myself for the final exam. (IDI 01, Afghanistan, 18, Boy)
		Unsupportive teachers at accommodation	In my shelter, we have English teacher, Greek teacher, Computer teacher, and Math teacher [*How many months did you stay with them as a student?*] They were not stable. It's about four months that I live here in the shelter. They left, after two or three months, the other one came. (IDI 13, Afghanistan, 17, Girl)
		Supportive teachers at accommodation	Like the Greek volunteers [at the shelter] … We actually did so many practices with the alphabet … We had classes after the school, so for our homeworks or something. We sit together and we studied at our homeworks and they explain for us what's the meaning, what's this and this. (IDI 29, Pakistan, 16, Girl)
School	Teachers and school staff	Unsupportive teachers at school	The way that they behave showed us that they were racist. And it is as if they are forced to teach, they don't like to teach. For example, it was winter, and the

			weather was cold. The way that they shouted at us to go out of the class was completely racist. (IDI 12, Afghanistan, 17, Girl)
		Supportive teachers at school	My teacher … He really wants me to learn the Greek language, so putting a lot of effort and also financially, sometimes when I need something, I can ask him if he can afford to do it … No, there is no one else except my teacher. (IDI 07, DR Congo, 17, Boy)
		Unsupportive principals and other school staff	When it was the bad principal, let's say, he was like, "We don't accept. We are full. We don't have any places for the new students. You should have done this and this, and you are late, you had to make your documentation earlier. You need this document and this document," which were not always necessary (IDI 14, Afghanistan, 22, Boy)
		Supportive principals and other school staff	The principal. I think so, they are very kind. And we used to translate for them in the school sometimes … In the school, we are all one. So kids from here don't have problem. No. Even if we have this, principal is kind. So the principal, from a small age, she's teaching us these things, so don't be rude to the others. (IDI 28, Lebanon, 16, Girl)
	Classmates and school peers	Unsupportive classmates and school peers	A specific student couldn't talk with us in person, but with cell phone, we don't know how, she chatted to us. She was able to chat with us and she told us, 'I am afraid of you, because you are from Afghanistan'. (IDI 04, Afghanistan, 17, Boy)
		Supportive classmates and school peers	They tried to support me, they tried to explain to me. For example, I had the paper in order to fill for the – it was a request for the next year, in order which school and which section I want to study. So they try to explain in a more detailed, easy way that I can understand. And they try to fill the paper with me. Yes, I mean the way they are very nice, they are respected, so they try to help. (IDI 23, Iran, 17, Boy)

	Educational placement	Poor educational placement	At first I had a mindset that I'm like more safe here, I have more security at the school – being at school. But later I got that no, it's not true, because one day – every day that we were going to the container, like morning, we're able to find drugs and cigars at the class that are being used. But when we were asking our teacher what are this, they said that there are people who are coming to their school like illegally, at night, and they come here and do this stuff. (IDI 30, Afghanistan, 16, Boy)
		Strong educational placement	One thing about the school, the place makes me feel very protected. I receive a lot of love from the school and the staff, and they give me a lot of energy and lots of kindness, and it helps me improve in education. (IDI 08, Afghanistan, 16, Boy)
	Remote learning	Remote learning challenges	One thing about the school, they place makes me feel very protected. I receive a lot of love from the school and the staff, and they give me a lot of energy and lots of kindness, and it helps me improve in education. (IDI 05, Afghanistan, 19, Boy)
		Remote learning supports	Right now, I prefer remote learning because I can save time going to school all day. Actually, now I attend some English lessons as well for to gain proficiency in [NGO], which I have the opportunity either to go to the [NGO], or to attend online, which I always attend online. I prefer remote because I save the time of going and coming back. But some time it's good to attend the classes from there, or not remote. (IDI 14, Afghanistan, 22, Boy)
Community	Friends	Unsupportive friends and community peers	[*What about friends?*] I didn't have a lot of them. I have a I have a big problem of trusting people from my background and it's very difficult for me to really get attached to somebody like. Because of my life, I've had a lot of deception from the people that I loved before. (IDI 06, Cameroon, 20, Girl)
		Supportive friends and community peers	So, it was just about motivation. Like we motivate ourselves to like each other because we were all from the African francophone community, so we were motivating each other. (IDI 09, DR Congo, 20, Boy)

	Financial status	Financial insecurity access	I'm working in a place where we have Greek, and we have refugees. But the refugees never get paid overtime for the extra hours that they are working. They have the salary and that's it. So it's like, we don't deserve it, and it's like, we can't complain about it. And if you complain about it, they feel that you are not grateful for what they are giving you, but you are asking actually for what you are working for, not anything more. (IDI 06, Cameroon, 20, Girl)
		Financial support access	When I came here. I was down. I didn't have the motivation. Yet, [my cousin] was always providing for me, for example, my expenses when I needed some money and cash and stuff like that. The most important thing is that he is like a symbol of success for me. And after that, whenever I'm down, he is the only one that I go to and get motivated and stuff like that. (IDI 02, Afghanistan, 16, Boy)
	Employment status	Employment insecurity	First of all, I should get a job, and rent a house. After that, we should have money for rent and food. After that, go out to society. After that, school, then university, and like that. You cannot go with empty hands. You cannot make it like this. The first thing is job. And after that, everything else will come. (IDI 05, Afghanistan, 19, Boy)
		Employment support	When I was 17, I got an opportunity in a company in London. It was remote. They offered me a two-month internship, so I was in need of this tax number for the company. I was thinking I couldn't get this opportunity because I didn't have that tax number … [The shelter] went to the state and asked, 'OK. We have a boy here. He is trying hard. He has a has an opportunity, and we want a tax number for him'. So, they got that tax number. It was really, really surprising. (IDI 01, Afghanistan, 18, Boy)
	NGOs	NGO challenges	Referring to my educational journey in Greece. I didn't have the opportunity to go to School, but I got the chance to follow some lessons with other NGOs, but unfortunately, they had to close, and from then I didn't continue. I applied in other organizations to follow my Greek and English lessons, but they answered to me in very difficult ways because my level was not good, so I was taking a lot of time until today. I'm still waiting. (IDI 09, DR Congo, 20, Boy)
		NGO supports	Because of these NGOs, I managed to participate in many, many activities that were organized because, whenever we had to they an activity that it was organized by another NGO, they would invite us kids. So I was participating

			either in terms of education or artistic workshops or in every kind of activity, I was being involved, getting involved in these kind of activities that were organized by the NGOs. So this helped me, and I put them in my CV. (IDI 11, Guinea, 22, Boy)
		Unsupportive teachers at NGOs	Yes, my shelter registered me to another organization for English language classes because I didn't do English in school, I do only Greek. I go there but I don't like it. It's not working [*And why don't you like it?*] Maybe because of the teachers, they don't explain well, but I really try to work and to learn. At the end of the day I prefer Greek now, because I understand Greek better than English. (IDI 07, DR Congo, 17, Boy)
		Supportive teachers at NGOs	They teach you every day. They have a rule that I like. If you have something, like you should go to the asylum service, you must inform them. If you don't, it doesn't matter. You must leave, because they have a lot of students waiting to get registered. And that's something I like because they enforce rules. When you study there every week, they give exams to know how much you've learned so far. If you didn't learn exactly what they teach, you must study from the beginning. (IDI 15, Afghanistan, 18, Boy)
	Sports	Sports and games	Outside of my class, I had to make some friends with whom we were playing football from my community and other communities as well. [Do you enjoy playing football with your friends?] I always love planing [laughs]. [Does playing sports give you energy for education and learning?] Yes, it motivates me. It helps me take out stress. It's very important. (IDI 09, DR Congo, 20, Boy)
Policy	Immigration policy	Immigration policy challenges	I don't know. First of all, I would like to receive my papers, my documents, but I know that I would definitely realize that possibility. I don't know how long it would take. I'm still waiting for my documents and I'm waiting for these documents to be out first, and then I will figure out, but I know that I will definitely realize this. (IDI 09, DR Congo, 20, Boy)
	Integration policy	Integration policy challenges	The difficult part is that I am all alone and that I don't have anybody to help me for my personal comfort and my personal growth. I don't have anybody to guide me on how to find work and other organizations where I can learn better than what I'm doing right now. That's why I'm willing to learn the language

			because I don't have anybody that would guide me to have all documents required for the job, for example, the tax number and the social security number and other. (IDI 07, DR Congo, 17, Boy)
	Housing policy	Housing policy challenges	Language was the first problem. The second one was the relocation part that you must move from house to house. The third one, maybe I can say the enthusiasm that you must want to study is the third, because you will lose the appetite to study. And the transportation, it's exhausting, it kills the mood. (IDI 03, Afghanistan, 18, Boy)
	Transportation policy	Transportation policy challenges	They were in charge for our transport to school. But then they should have funds on buses for us to get us to school, but they didn't like actually. We didn't know the reason, but for many months, we didn't have any bus or any other option to go to school. So we wasn't able to go to school. (IDI 25, Afghanistan, 21, Boy)
Time	COVID	Crises-related challenges	COVID 19 was the worst scenario that the whole thing stopped suddenly, and we couldn't go to any place at all. It's the worst scenario that something can impact your education and it stopped us from going to any educational center. (IDI 02, Afghanistan, 16, Boy)

Note: Codes in red color font refer to risk factors and codes in green color font refer to resilience factors

Appendix D5. *Results of the cross-tabulation analysis.*

	UASCs (N = 15)		Non-UASCs (N = 10)		Total (N = 25)	
	n	**%**	**n**	**%**	**n**	**%**
Higher age at admission to school	6	40%	3	30%	9	36%
Lower age at admission to school	0	0%	1	10%	1	4%
Gendered experiences as girls	1	6.67%	2	20%	3	12%
Gendered experiences as boys	2	13.33%	0	0%	2	8%
Negative prior education	7	46.67%	2	20%	9	36%
Positive prior education	4	26.67%	0	0%	4	16%
Poor physical and mental health	2	13.33%	1	10%	3	12%
Unsupportive next of kin	0	0%	2	20%	2	8%
Supportive next of kin	2	13.33%	7	70%	9	36%
Poor camp accommodation	4	26.67%	2	20%	6	24%
Poor residential care	7	46.67%	0	0%	7	28%
Quality residential care	3	20%	1	10%	4	16%
Unsupportive social workers	8	53.33%	2	20%	10	40%
Supportive social workers	12	80%	3	30%	15	60%
Unsupportive teachers at accommodation	2	13.33%	0	0%	2	8%
Supportive teachers at accommodation	6	40%	2	20%	8	32%
Unsupportive teachers at school	4	26.67%	4	40%	8	32%
Supportive teachers at school	9	60%	7	70%	16	64%
Unsupportive principals and other school staff	5	33.33%	2	20%	7	28%
Supportive principals and other school staff	3	20%	6	60%	9	36%
Unsupportive classmates and school peers	5	33.33%	5	50%	10	40%
Supportive classmates and school peers	9	60%	8	80%	17	68%
Poor educational placement	6	40%	3	30%	9	36%
Strong educational placement	5	33.33%	1	10%	6	24%

Remote learning challenges	9	60%	3	30%	12	48%
Remote learning supports	11	73.33%	7	70%	18	72%
Unsupportive friends and community peers	2	13.33%	2	20%	4	16%
Supportive friends and community peers	12	80%	7	70%	19	76%
Financial insecurity access	5	33.33%	1	10%	6	24%
Financial support access	8	53.33%	0	0%	8	32%
Employment insecurity	4	26.67%	1	10%	5	20%
Employment support	2	13.33%	0	0%	2	8%
NGO challenges	4	26.67%	4	40%	8	32%
NGO supports	14	93.33%	9	90%	23	92%
Unsupportive teachers at NGOs	3	20%	0	0%	3	12%
Supportive teachers at NGOs	6	40%	5	50%	11	44%
Sports and games	6	40%	2	20%	8	32%
Immigration policy challenges	5	33.33%	3	30%	8	32%
Integration policy challenges	6	40%	1	10%	7	28%
Housing policy challenges	6	40%	2	20%	8	32%
Transportation policy challenges	2	13.33%	2	20%	4	16%
Crises-related challenges	14	93.33%	3	30%	17	68%

Note: Codes in red color font refer to risk factors and codes in green color font refer to resilience factors

Appendix D6. *Research ethics CUREC 2 approval (R77223/RE001) and amendment approval (R7723/RE002).*

SOCIAL SCIENCES & HUMANITIES INTERDIVISIONAL RESEARCH ETHICS COMMITTEE

Research Services, University of Oxford, Wellington Square, Oxford OX1 2JD, UK Tel: +44(0)1865 616576 Email: ethics@socsci.ox.ac.uk

21st September 2021

Yousef K Aleghfeli
Rees Center,
Department of Education
University of Oxford

Dear Yousef

Research ethics approval (CUREC 2)

Research Title: Educational resilience of unaccompanied refugee youth in Greece: a socio-ecological mixed methods study
Research Ethics Reference: R77223/RE001

The above application has been considered by the Social Sciences and Humanities Interdivisional Research Ethics Committee (SSH IDREC) in accordance with the University's procedures for ethical approval of all research involving human participants.

I am pleased to confirm that, on the basis of the information provided to the IDREC, ethics approval has now been granted for this study.

Please note the following:

Personal data: It is the responsibility of the PI to ensure that all personal data collected during the project is managed in accordance with the University's guidance and legal requirements.

In-person activities: Any data collection involving in-person interactions with participants must have an up-to-date Covid-19 fieldwork risk assessment in place; further guidance is available from the Safety Office's website.

Amendments: Please notify the committee if you intend to make any amendments to the information in your ethics application as submitted at date of this approval, as all changes must receive ethical approval prior to implementation. The amendment form is available on the SSH IDREC webpage.

Adverse events: The SSH IDRECs must be notified within seven days of any unexpected adverse consequences to the research participants or other people involved in this research project.

Audit: The SSH IDREC audits a sample of projects each year to enable the Committee to monitor the ethical aspects of research in progress.

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to ethics@socsci.ox.ac.uk.

Yours sincerely,

Jennifer Blaikie
Research Ethics Manager
cc: Dr. Sonali Nag; Prof. Leon Feinstein

Yousef Khalifa Aleghfeli - ethics approval, reference R77223/RE001 - Amendment Request

Social Sciences & Humanities IDREC <ethics@socsci.ox.ac.uk> Tue, Apr 5, 2022 at 3:43 PM
To: Yousef Khalifa Aleghfeli <yousef.aleghfeli@education.ox.ac.uk>

Dear Yousef,

Thank you for your email below to Jennifer. As the amendment has been approved today, reference R7723/RE002, we wish you all the best with the next phase of the research,

Best wishes

Alison

UNIVERSITY OF OXFORD RESEARCH SERVICES

researchsupport.admin.ox.ac.uk

Alison Monk

Research Ethics Administrator

Research Services I Research Governance, Ethics & Assurance Team

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Working days Tuesday-Thursday (inclusive)

Appendix to dissertation, 'Educational resilience of unaccompanied and separated children' by Yousef Khalifa Aleghfeli, Department of Education, University of Oxford