



National Center of Competence in Research – The Migration-Mobility Nexus





SWISS NATIONAL SCIENCE FOUNDATION

Do migrant and refugee high school students have specific school-resilience patterns in order to satisfy basic psychological needs?

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Why should adolescent students like going to school and performing? Intrinsic motivation and school success

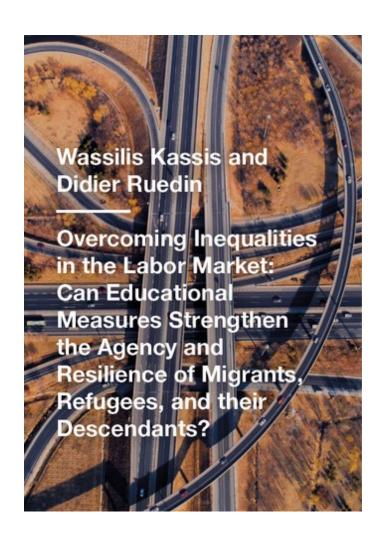
- In the past, intrinsic motivation at school was conceptualized as an intra-individualistic attitude towards school and was highly dependent on the dispositional strength of the respective individual motive (e.g. Heckhausen, 2000).
- Newer school oriented motivational theories as the Self-Determination-Theory (SDT) are covering not only academic competence but also questions on autonomy (self-concept) and social relations (Deci & Ryan, 2011).
- Following immense empirical evidence on the effects of SDT (Deci & Ryan 2017), adolescent students' intrinsic motivation is considered to be the most important indicator for school success.
- But: So far, we know (astonishing!) little on how we could foster and support selfdetermination in adolescence.
- In our study we are investigating the patterns driving intrinsic motivational potential for different groups of adolescent students.



The overall project: NCCR on the move



- ➤ Funded by the Swiss National Science Foundation, the National Center of Competence in Research "nccr on the move" aims to enhance the understanding of contemporary migration patterns.
- Managed from the University of Neuchatel/Switzerland, the network comprises eleven universities in Switzerland.
- ➤ Under this umbrella the Research Department of the School of Education, University of Applied Sciences and Arts Northwestern Switzerland (FHNW), is leading an international (Germany, Greece, and Switzerland) longitudinal (2019-2023) study on school resilience of migrant and refugee students.



The project <u>Inequalities and Resilience at School</u> (2019-2023) is focusing on young immigrants, refugees, and children of labor migrants as some of the most disadvantaged groups in contemporary Western societies.

This project enhances our understanding of the continued disadvantage of young immigrants, refugees, and their descendants by examining processes leading to ethnic disadvantage in school and labor market.

We examine the conditions under which immigrants gain agency and move from being objects of discrimination and inequalities related to education and the labor market to successfully completing formal education and getting a job.



Research questions

- We combine theories on cumulative discrimination and resilience. Protective factors on ethnic disadvantage that facilitate advancement in one life domain also facilitate advancement in others (e.g., labor market, formal education).
- How can educational measures strengthen the agency and resilience of migrants, refugees, and their descendants with regard to school-success?
- How do immigrants signal resilience in the face of anticipated discrimination in schools?
- Which are the empirically validated individual and societal resilience pathways in education linked to overcoming discrimination in the labor market?
- The project will provide an intersectional perspective by identifying obstacles to and facilitating factors for resilience among groups of adolescents differing in terms of gender, SES, and migration/ethnicity.
- In exploring and modelling the various pathways towards resilience, it aims to offer group-specific insights into differential young people's resilience patterns (Theron & Ungar, 2018; Ungar, 2018).



The main goal of our project

The main goal of the educational research sub-project connected to Germany, Greece, and Switzerland is

- ...to understand resilience patterns under which adolescent (age 12-16) refugees and migrants gain agency and
- ...move from objects of discrimination and inequalities
- ...to successful school students or trainees of vocational training.
- Therefore, we ask for adolescent refugees' and migrants' protective and risk factors in high-schools.



Three research-teams, one goal

- ➤ The coordinator (Prof. Dr. Wassilis Kassis) of «Inequalities and Resilience at School» is at the School of Education in Switzerland, with
- ...one additional team in Germany (Prof. Sr. Ulrike Graf, Prof. Dr. Christian Rietz at the University of Education at Heidelberg, Germany), and
- ...one team in Greece (Prof. Dr. Christos Govaris, at the University of Thessaly).
- Four PhD-students (Raia Chouvati, Clarissa Janousch, Gülseren Sarikaya, Petra Sidler), and one PostDoc (Beyhan Ertanir) are with us on this long research journey until 2024.



Our Understanding of Resilience

- For a far to long time and despite empirical evidence resilience has been conceptualized as a cheap advertisement of «just do it».
- It was just about the individual's capacity to move forward, to «beat the odds».
- Resilient adolescents were considered as «Doing better despite adverse experiences»….» and it was just up to them to make the «ordinary magic of resilience» happen.
- Due to that, if adolescents were not successfull on beating the odds, the concept of «blaming the victim» was practiced.
- At least since 2014 we are working with a newer conceptualization of resilience witch is far more systemic.



Resilience as the capacity of a dynamic system

- «The capacity of a dynamic system to adapt successfully to disturbances that threaten system function, viability, or development» (Masten, 2014, p. 10).
- The individual is of course still a central pillar to that understanding, but additional pillars (family, friends, schools, laws, political system) are not just added but also connected.
- We furthermore reshaped resilience theory and clearly differentiated resilience from salutogenetic theories (e.g. Antonowsky) by aknowledging the central importance of risk and supportive factors for adolescents' resilience status.
- Following this path, resilience theory has to take into consideration not just individual supportive and risk factors, but also social and societal factors.
- Due to that, we are asking about patterns consisted by individual, social, and societal supportive and risk factors to adapt successfully to disturbances.



The Role of the Satisfaction of Basic Psychological Needs for School Success

- Deci's and Ryan's self-determination theory of motivation focuses on three primary psychological needs inherent in humans (Deci & Ryan, 2011).
- The satisfaction of these needs represents a decisive requirement for intrinsic motivation and for school success.
- (1) The need for <u>competence</u> focusses on both specific outcomes and the experience of intended effects during school. "I finished difficult tasks and assignments successfully.";
- (2) The need for <u>autonomy</u> focusses on a students' aspirations to experience the self as the origin of their actions during school. "I was free to do things in my own way.";
- (3) The need for <u>relatedness</u> for adolescent students encompasses the universal urge to be connected, to interact with and to experience interrelated caring during school. "I did not feel I was valued by one or more classmates who were important to me."



The connection between theoretical conceptualizations and research design

- How can we take into consideration empirical patterns consisted by individual, social, and societal supportive and risk factors to adapt successfully to disturbances?
- How do we «catch» and foster supportive and how do we identify and reduce incriminating patterns?
- What kind of research design and specific methodology do we need to make modern resilience theory happen?
- We decided to do that by understanding school success resilience patterns.
- Patterns are far more than just the relation of «dependent» and «independent» variables, patterns are the interrelations of latent school success socialization structures fostering resilience.

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Graham, H. R., Minhas, R. S., & Paxton, G. (2016). Learning problems in children of refugee background: A systematic review. Pediatrics, 137(6).

Learning Problems in Children of Refugee Background: A Systematic Review

Hamish R. Graham, MBBS, MPH, FRACP, a, b Ripudaman S. Minhas, MD, MPH, FRCPC, o,d Georgia Paxton, MBBS, BMedSci, MPH, FRACPa,e

CONTEXT: Learning problems are common, affecting up to 1 in 10 children. Refugee children may have cumulative risk for educational disadvantage, but there is limited information on learning in this population.

OBJECTIVE: To review the evidence on educational outcomes and learning problems in refugee children and to describe their major risk and resource factors.

DATA SOURCES: Medline, Embase, PubMed, Cumulative Index to Nursing and Allied Health Literature, PsycINFO, and Education Resources Information Center.

STUDY SELECTION: English-language articles addressing the prevalence and determinants of learning problems in refugee children.

DATA EXTRACTION: Data were extracted and analyzed according to Arksey and O'Malley's descriptive analytical method for scoping studies.

RESULTS: Thirty-four studies were included. Refugee youth had similar secondary school outcomes to their native-born peers; there were no data on preschool or primary school outcomes. There were limited prevalence data on learning problems, with single studies informing most estimates and no studies examining specific language disorders or autism spectrum disorders. Major risk factors for learning problems included parental misunderstandings about educational styles and expectations, teacher stereotyping and low expectations, bullying and racial discrimination, premigration and postmigration trauma, and forced detention. Major resource factors for success included high academic and life ambition, "gift-and-sacrifice" motivational narratives, parental involvement in education, family cohesion and supportive home environment, accurate educational assessment and grade placement, teacher understanding of linguistic and cultural heritage, culturally appropriate school transition, supportive peer relationships, and successful acculturation.

LIMITATIONS: Studies are not generalizable to other cohorts.

CONCLUSIONS: This review provides a summary of published prevalence estimates for learning problems in resettled refugee children, highlights key risk and resource factors, and identifies gaps in research.

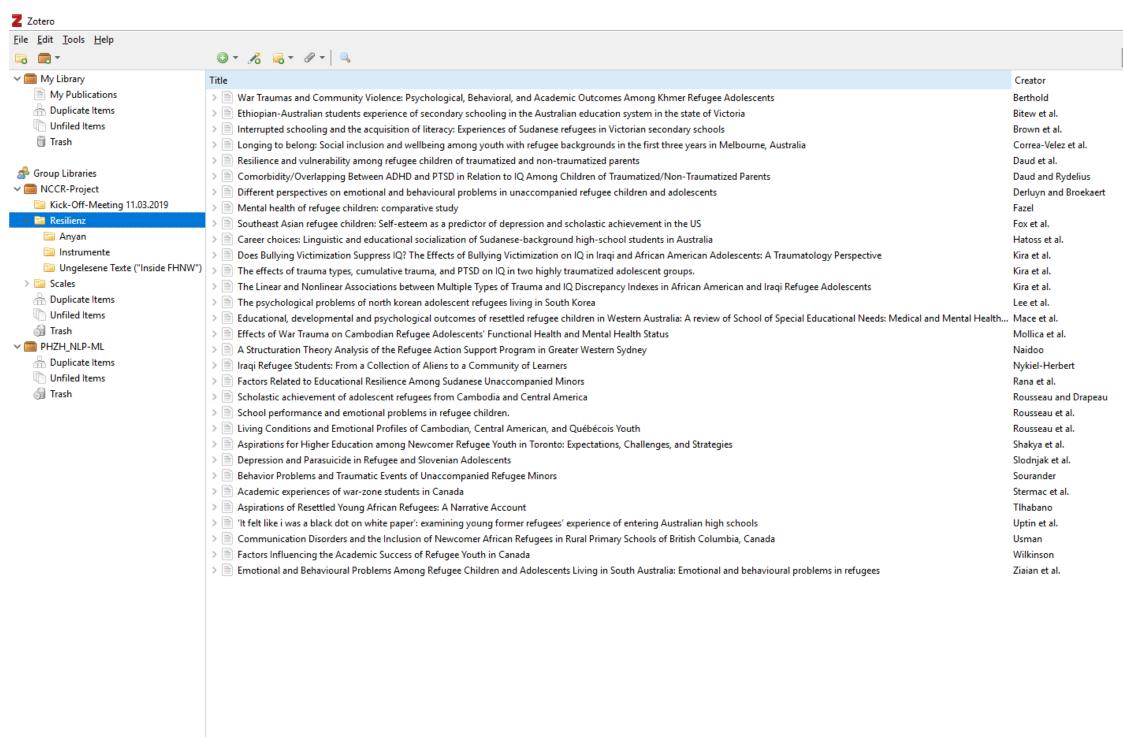


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REVIEW ARTICLE





Design...Making it happen

- We specify the project approach and aims in order to understand resilience pathways and the interplay of individual, family and school class risk and protective factors for different groups of adolescents concerning the intersection between gender, migration and socio-economic status (SES) in the face of migration.
- Adolescents <u>refugees</u>, <u>adolescents with migration background and native adolescents</u>.
- *In sum* approx. 1'200 adolescents, their respective parents and head-teachers, 60 classes.
- To understand and identify resilience pathways and analyse resilience stability, we are examining after the t0-baseline when entering high-school at three time points, namely the end of the respective school year in high school in the seventh (t1), eighth (t2) and ninth (t3) grades.
- Online students' and teachers' questionnaire, paper/pencil questionnaire for parents.



Translating meaning not words...!

 Culture-sensitive translation of students' and parents' questionnaire in seven languages (Arabic, English, Farsi, French, German, Greek, Turkish).

Language	Item
German	Ich habe wirklich das getan, was mich interessiert.
Greek	Έκανα στα αλήθεια ότι με ενδιέφερε.
Arabic	لقد فعلت في الحقيقة ما يهمني.
English	I did what truly interested me.
Farsi	واقعی عمل کردم در مورد چیز های که علاقه مند بودم
French	J'ai vraiment fait ce qui m'intéressait.
Turkish	Beni gerçekten ilgilendiren şeylerle uğraştım.

Behr, D., Braun, M., Kaczmirek, L. & Bandilla, W. (2014): Item comparability in cross-national surveys: results from asking probing questions in cross-national web surveys about attitudes towards civil disobedience. In: Quality & Quantity, 48(1), S. 127-148.

Ferrari, A., Wayrynen, L., Behr, D. & Zabal, A. (2013): Translation, Adaptation, and Verification of Test and Survey Materials. In: OECD (Hrsg.): Technical Report of the Survey of Adult Skills (PIAAC) 2013.

Peña, E. D. (2007). Lost in translation: Methodological considerations in cross-cultural research. *Child development*, 78(4), 1255-1264.



Meassures (excerpt for this presentation..)

- Self-determination, the three basic psychological needs (Deci & Ryan, 2011)
- Hopkins Symptom Checklist (HSCL) (Derogatis et al, 1974)
- Adolescent stress questionnaire (ASQ) (Byrne, 2007)
- Big Five Inventory (Rammstedt, 2013)
- Resilience scale for adolescents (Hjemdal et al, 2006)
- Rosenberg-Self-Esteem-Scale (Rosenberg, 1985)
- Perceived self-efficacy (Jerusalem & Schwarzer. 1992)
- Satisfaction with life scale (Diener et al., 1985)



Analytic Strategy... LCA as the art of unscrambling eggs

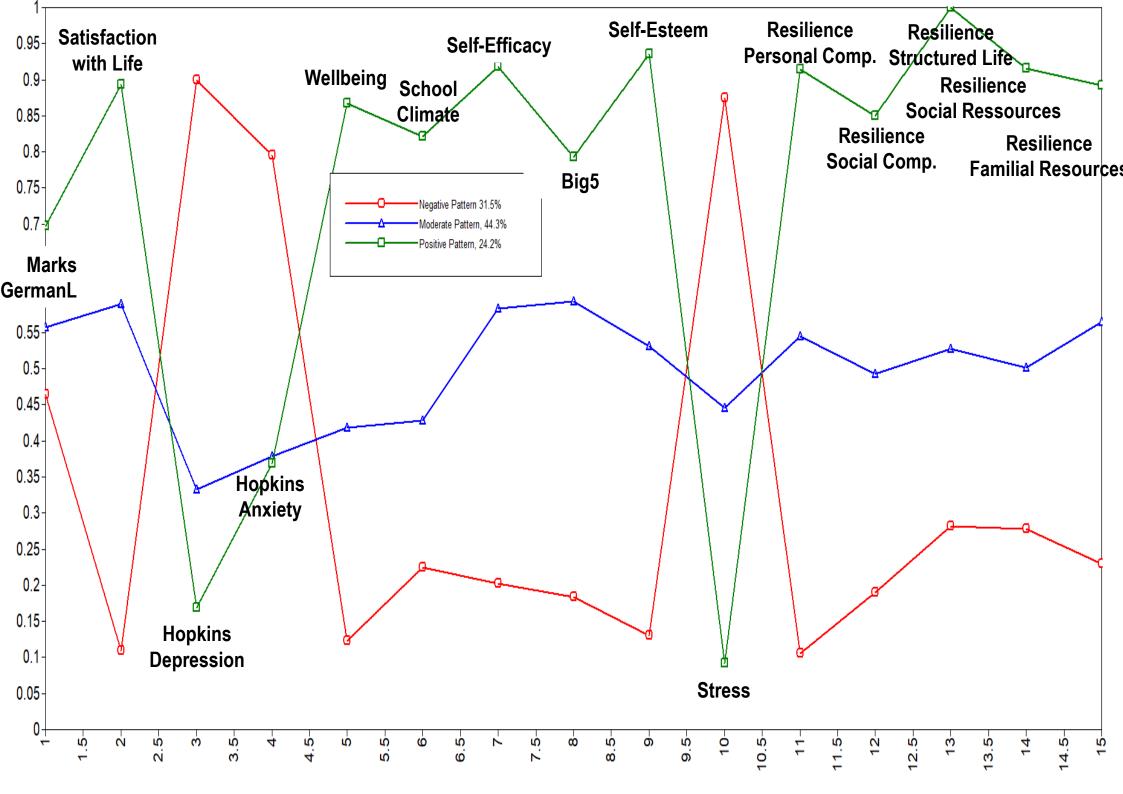
- Latent class analysis (LCA) is a statistical measurement model used to identify a set of discrete, mutually exclusive latent classes of individuals based on their responses to a set of observed categorical variables.
- «...is the art of unscrambling eggs: it recovers hidden groups from observed data."
 (Oberski, 2016, p. 275).
- In the social and behavioral sciences, it is useful to regard many constructs as latent variables. These variables cannot be observed directly and instead must be inferred from multiple observed items the latent class model divides a population into mutually exclusive and exhaustive subgroups (Goodman, 1974; Lazarsfeld & Henry, 1968).
- By running Latent Class Analyses (Muthen & Muthen, 2017) we're identifying specific latent school-resilience patterns (profiles) for migrants-students, refugee-students and students without migration-background to the prediction of students' satisfaction of basic psychological needs (autonomy, competence, and relatedness) following self-determination theory (Deci & Ryan, 2011).



Sample and measurement

- Online survey, tablets at school (approx. 40 minutes), September/October 2019
- 351 adolescent students in German-speaking Switzerland (Age M=12.9 years)
- 48.4% female students, 54.3% Swiss-Citizenship, 34.5% both parents born in Switzerland, 18.5% of the students were foreign-born.

Scale	Items	Ca
 Self-Determination, three basic psychological needs (SDT) 	18	.78
Hopkins Symptom Checklist (HSCL)	24	.94
Adolescent stress questionnaire (ASQ)	28	.91
Big Five Inventory (Big5)	10	.70
Resilience scale for adolescents (READ)	28	.90
Rosenberg-Self-Esteem-Scale (SES)	10	.83
Perceived self-efficacy (PSE)	10	.88
Satisfaction with life scale (SWLS)	5	.81





LCA-Modellfit Indices: Comparison for the number of classes to be chosen

Classes	df	Sample- Size Adjusted Bayesian (BIC)	Entropy	p-value LMRT ₁	p-value BLRT ₂
2	31	6246	.836	<.001.	<.001.
3	47	6160	.790	<.001.	<.001.
4	63	6116	.812	>.05.	<.001.
5	79	6115	.788	>.05.	<.05.

- 1: VUONG-LO-MENDELL-RUBIN LIKELIHOOD RATIO TEST
- 2: PARAMETRIC BOOTSTRAPPED LIKELIHOOD RATIO TEST

<u>Summary:</u> Following these tests and following the parsimony condition, 3 classes are the optimal choice. The LMRT gave empirical evidence that supported a 3-class over a 2-, 4- or 5-class solution. Because of the entropy- and the BIC-values that has to be checked again with additional samples.



Latent class analysis (LCA): Resilience theory related conclusions on the overall sample

- ➤ Concerning the overall sample (N=351) using latent class analysis we identified distinct patterns of school success among adolescents in Switzerland differing in terms of type of personality, self-concept, school specific social relations, general wellbeing, and social resources (family/friends).
- The three identified school-success patterns ("positive", "moderate", and "negative") are significantly distinctive concerning the levels of individual and social supportive and risk factors.
- School success is far (far) more than having good marks!



School-success patterns: Distribution of Swiss-born/foreign-born adolescents, variance analysis

Pattern	df	F-value	p-value	% Swiss- born	% foreign- born
Positive pattern (24.2%)	1/350	10,51	<.001.	92,8%	7,2%
Moderate pattern (44,3%)	1/350	.93	>.05.	78,1%	21,9%
Negative pattern (31,5%)	1/350	5.01	<.05.	75,7%	24,3%

- ➤ The positive school success pattern consisted of almost only Swiss-born students.
- ➤ The foreign-born students have been identified significantly far-above average in the negative school success pattern.



Satisfaction of Psychological Needs (SDT) and School-Success Patterns, variance analysis, exemplary for school success pattern 1 "positive pattern"

	Overall sample N=351					
Pattern	df	F-value	p-value	Explained variance of SDT, corrected eta ²		
SDT_Overall scale	1/328	110,79	<.001.	25,3%		
SDT_subscale_autonomy	1/343	82,33	<.001.	19,4%		
SDT_subscale_competence	1/341	94,48	<.001.	21,7%		
SDT_subscale_relatedness	1/342	54,52	<.001.	13,1%		

- In sum: The decisive connection of intrinsic motivation (satisfaction of adolescents' psychological needs) to school success was clearly identified.
- The positive school success pattern is significantly connected to higher levels of SDT.
- The explained variance of the positive school success pattern on SDT is very high.
- Holds for SDT overall scale as for all three sub-scales (autonomy, competence, relatedness).



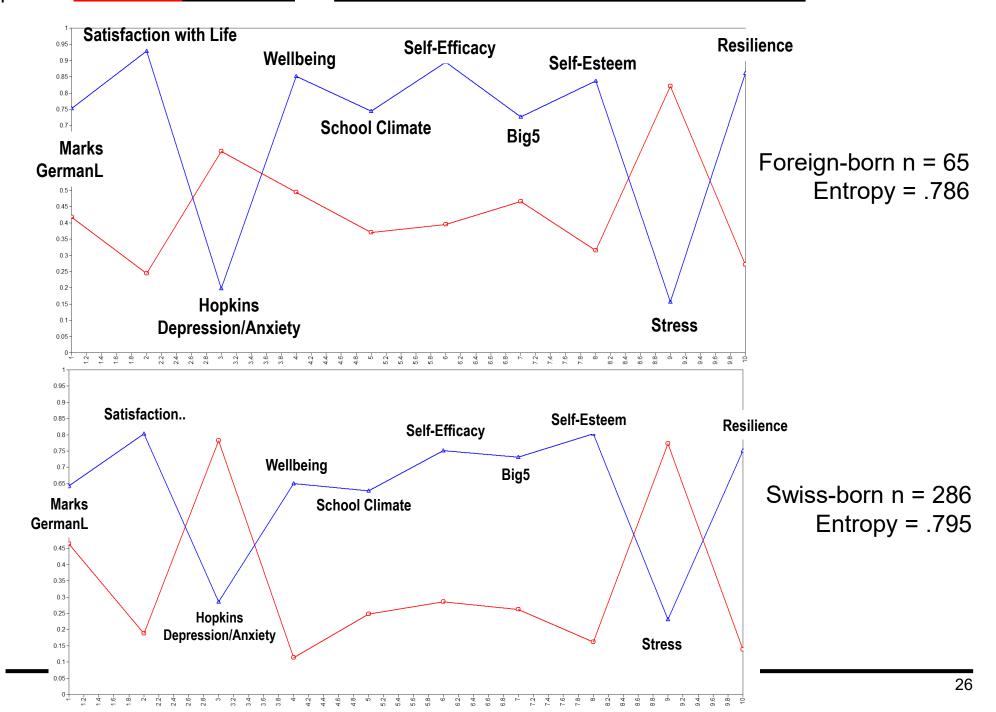
Intercorrelations between SDT and the single predictors

	SDT	Stress	BIG5	Marks German	Self- efficacy	School climate	Well being	Satisfaction with life	Resiience	Hopkins
SDT	1	 277**	.302**	010	.236**	.172**	.334**	.321**	.311**	407**
Stress	277 ^{**}	1	267**	.018	341**	280 ^{**}	272**	443**	353 ^{**}	.399**
BIG5	.302**	267**	1	.098	.260**	.157**	.265**	.249**	.300**	261**
Marks German	010	.018	.098	1	.000	.059	.035	.068	069	.049
Self-efficacy	.236**	341**	.260**	.000	1	.175**	.249**	.367**	.406**	290**
School climate	.172**	280**	.157**	.059	.175**	1	.326**	.289**	.294**	187 ^{**}
Well being	.334**	272**	.265**	.035	.249**	.326**	1	.387**	.457**	320**
Satisfaction with life	.321**	 443**	.249**	.068	.367**	.289**	.387**	1	.453**	365**
Resiience	.311**	 353**	.300**	069	.406**	.294**	.457**	.453**	1	280**
Hopkins	407**	.399**	261**	.049	290**	187**	320**	 365**	280**	1

- In sum: The single factors have no, low or moderate statistically signicant connections (red highlighted).
- > The identified patterns are making the distinctive difference!



Specific school-success patterns? LCA-comparison between positive and negative patterns of Swiss-born/foreign-born adolescents





Latent class analysis (LCA) comparisons; Conclusions on school success patterns specificity for foreign-born and Swiss-born students

- Comparing the two (one for Swiss-born and one for foreign-born adolescents) latent class analyses we identified almost identical patterns of school success among adolescents in Switzerland.
- That holds for both, the positive and the negative school-success patterns.
- ➤ The positive and the negative school-success patterns for Swiss-born or foreign-born adolescents are very similar concerning the levels of individual and social supportive and risk factors.
- > These data may be useful as the empirical basis for the planning of specific prevention and treatment interventions.



Limitations

For the time being (for the next two months...)

...just Swiss data, Greek and German data are on their way.

...so far no (very) clear disctiction between refugee and migrant students.

...just students' data, parents and teachers data are on their way.

...no computations on school class level, just on individual level. Multilevel-approaches will be applied.

...students' individual, familial, teachers' and classmates' acculturation strategies (assimilation, integration, and/ or segregation) were not included.

...gender and socio-economic status as additional intersectionality indicators were so far not included.

Within the next three years....longitudinal changes of school success patterns?



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Thank you very much!

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