

Education for the World of Tomorrow

Lessons learned from Corona and beyond

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Faculty of Psychology



Nextgen Training Technologies
June 2022

Purposes/ Goals of Education

A Manifesto for Social Progress Ideas for a Better Society

<https://www.ipsp.org/>



IPSP

International Panel on Social Progress
Rethinking Society for the 21st Century

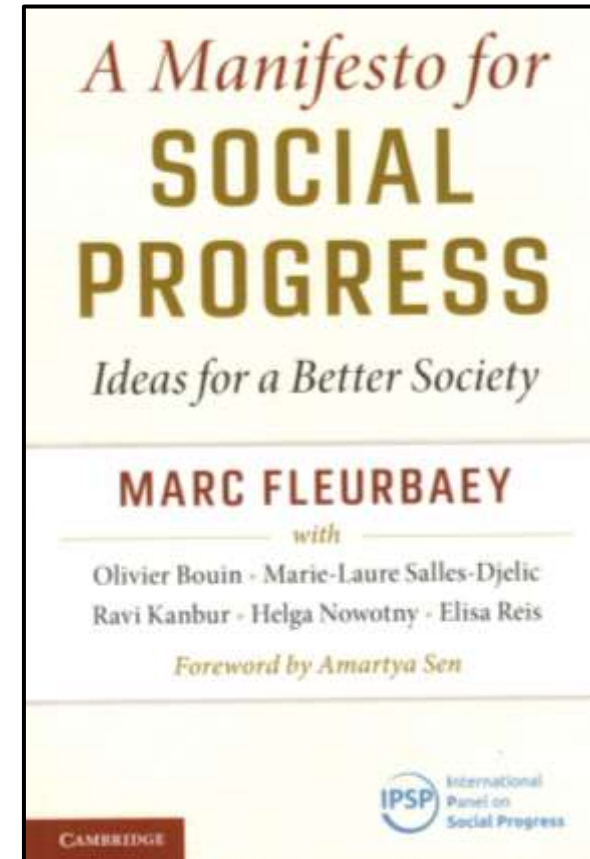
“The International Panel on Social Progress is uniting the world’s leading researchers, sociologists, and economists in a single effort: Developing research-based, multi-disciplinary, non-partisan, action-driven solutions to the most pressing challenges of our time.”

<https://www.ipsp.org/>



Lead Authors of IPSP







universität
wien

How education can promote social progress

The logo for the International Panel on Social Progress (IPSP), consisting of the letters 'IPSP' in a bold, white, sans-serif font, enclosed within a white circular outline.

IPSP

A photograph of a group of diverse children sitting on the floor in a classroom, looking towards the camera. The image is overlaid with a semi-transparent blue filter.

International Panel on Social Progress
Rethinking Society for the 21st Century

“Education is the process of learning and expanding culture, and, as it contributes to the improvement of the human condition through better knowledge, health, living conditions, social equity and productivity, is a central tool for social progress.”

Purposes of Education

Education is expected to foster social progress through four different but interrelated purposes:

- **Humanistic**, through the development of the individual and collective human virtues to their full extent;
- **Civic**, by the enhancement of public life and active participation in a democratic society;
- **Economic**, providing the individuals with intellectual and practical skills that make them productive and enhance theirs and society's living conditions;
- and through **social equity** and justice.

Purpose of school in Austria

Schule soll „... der gesamten Bevölkerung, *unabhängig von Herkunft, sozialer Lage und finanziellem Hintergrund*, unter steter Sicherung und Weiterentwicklung bestmöglicher Qualität ein höchstmögliches Bildungsniveau“ sichern.

„... Jede*r Jugendliche soll ... *befähigt werden*, am Kultur- und Wirtschaftsleben Österreichs, Europas und der Welt *teilzunehmen*“ .

Bundesverfassung Art. 14 B-VG i. d. F. BGBl. I Nr. 31/2005

Purpose of school in Austria

**Educational
Minimum
Participatory Justice**

Schule soll „... der gesamten Bevölkerung, *unabhängig von Herkunft, sozialer Lage und finanziellem Hintergrund*, unter steter Sicherung und Weiterentwicklung bestmöglicher Qualität ein höchstmögliches Bildungsniveau“ sichern.

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Equal Opportunity

Bundesverfassung Art. 14 B-VG i. d. F. BGBl. I Nr. 31/2005

Learning under Covid-19 Conditions

Challenges during COVID19: Lockdowns (light) deactivated central functions of school/university...



Photo by [Solen Feyissa](#) on [Unsplash](#)

- Structuring of everyday life related to learning
- Exchange with peers (learning from and with them)
- Direct observation of learning and acquisition of competencies through personal teaching (direct feedback)

High level of overall uncertainty, routines were inactive, loss of control

Challenges of distance learning



Photo by [Solen Feyissa](#) on [Unsplash](#)

For teachers, pupils, students, parents...

- Self-organization (self-regulated learning = SRL)
- Competent use of digital media; Digital literacy
- Self-efficacy/management of uncertainty
- Keeping in touch, new forms of teaching/learning, coping with loneliness
- Technical resources

Starting situation before the pandemic:

- Too little systematic support
- High heterogeneity and social inequality in education (see NBB, PISA)

Learning under COVID-19-Conditions

Project leads:

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Funded by the Vienna Science and Technology Fund (WWTF), by MEGA
Bildungsstiftung and the City of Vienna

Main research questions

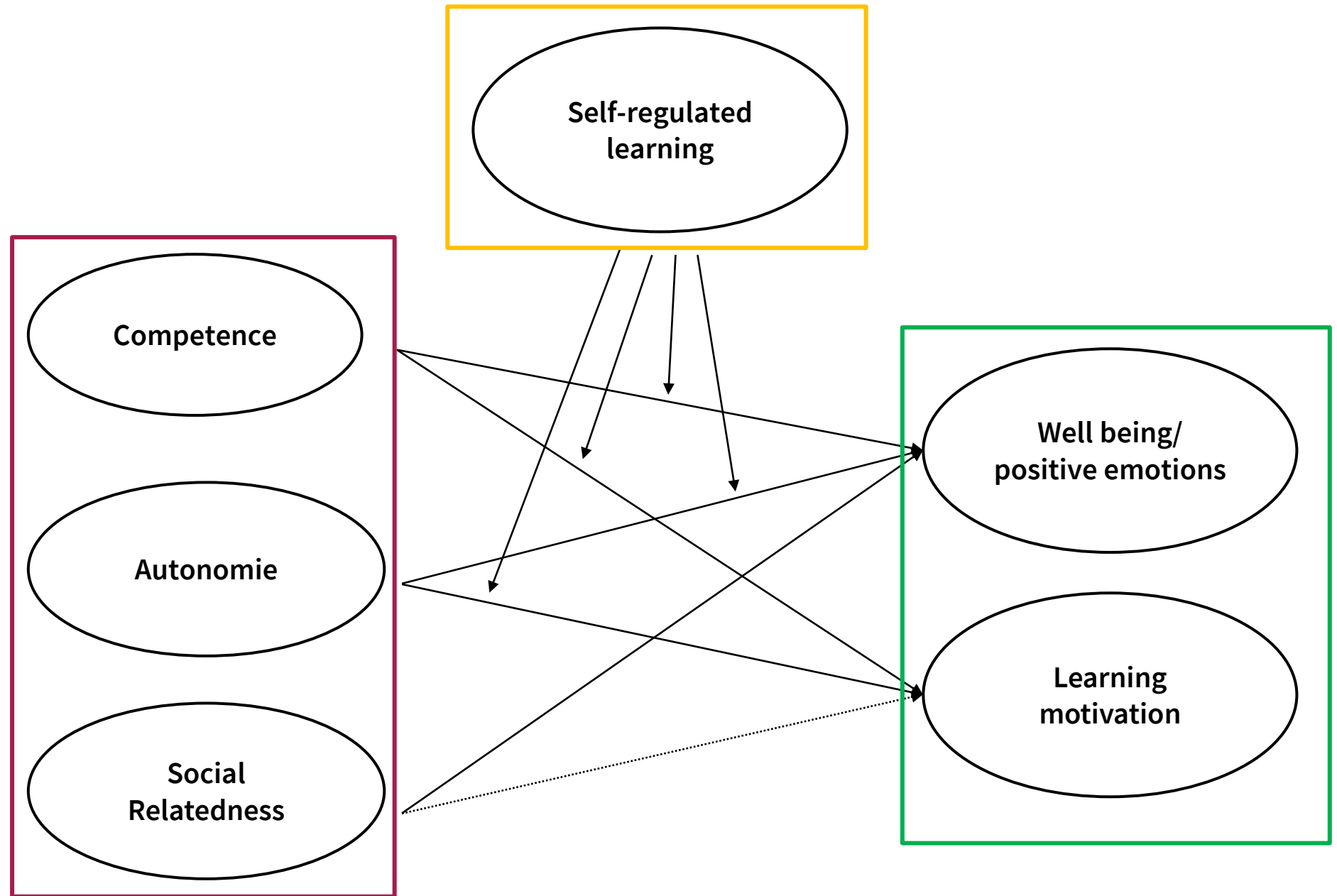
1. How do the students and pupils feel (**well-being**)?
2. How are they **coping with the new learning situation**?
3. How do well-being and motivation to learn **change over time**?
4. What **facilitates successful coping**, what makes it more difficult?
5. What can be derived from this? **Recommendations**?



Photo by [Mika Baumeister](#) on [Unsplash](#)

Theoretical framework:

Basic Needs and Social
Determination Theory
(Ryan & Deci, 2000)



Study “Learning under Covid-19-Conditions”

Target groups (data collections):

- **School children** - secondary education (5)
- **University students** (4)
- **School teachers** (2)
- **Elementary teachers** (1)
- **Principals** (1)
- **Parents** (1)

Design:

- **Cross-sectional & Longitudinal**
- Online **questionnaire studies**
- Complementary **interviews**
- **National and international**

Main results (across samples and measurement time points)

High relevance of basic psychological needs for well-being and motivation to learn: Need to experienced competence, autonomy, and social relatedness (moderated by SRL competencies)

Basis: two international studies

University students

Holzer, Korlat, et al. (2021): 8 countries, N = 25,305
(Austria, Cyprus, Finland, Germany, India, North Macedonia, Poland & USA)



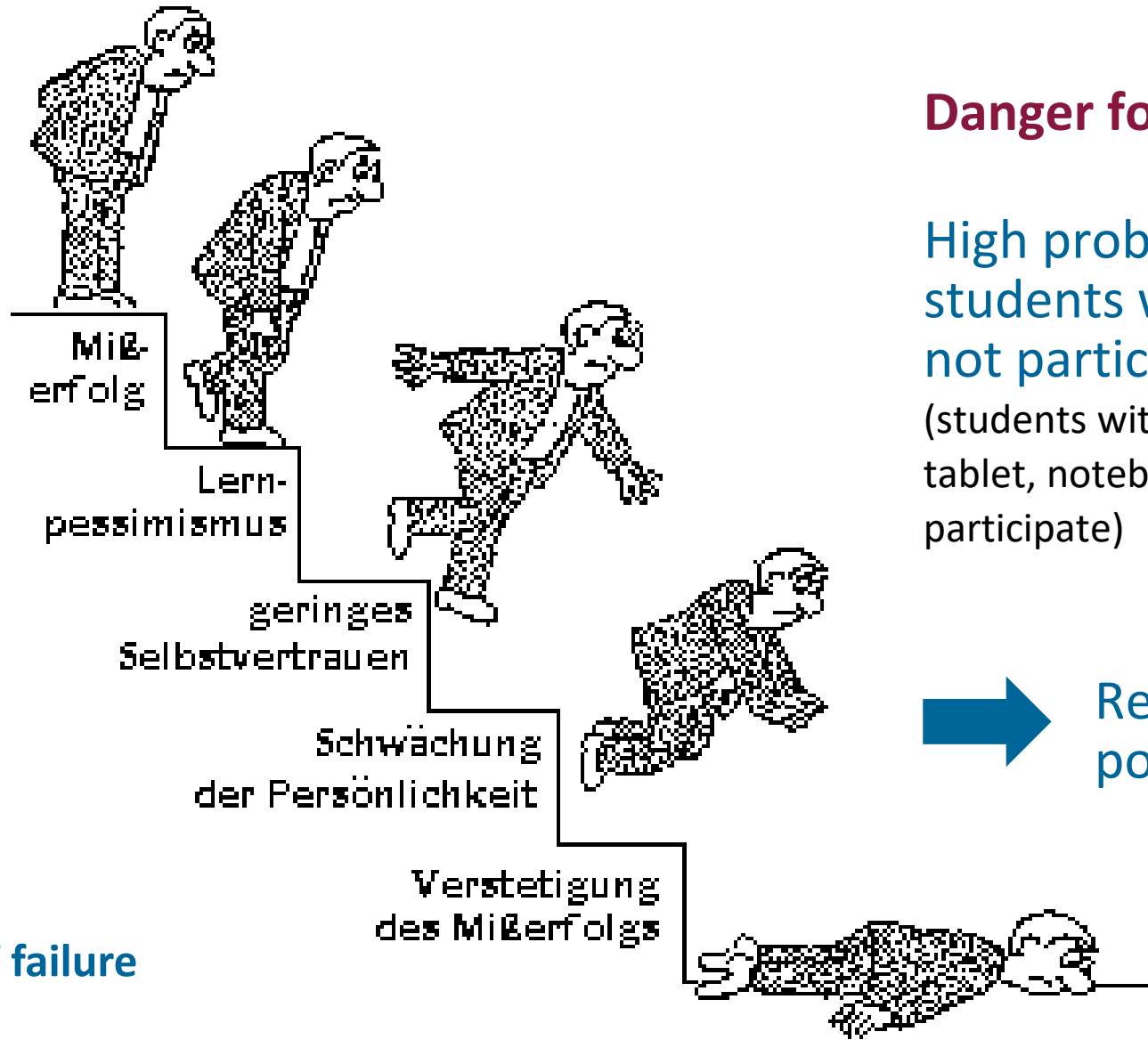
School students

Pelikan, Korlat, et al. (2021): 17 countries, N = 15,462
(Albania, Austria, China, Croatia, Estonia, Finland, Germany, Iceland, Japan, Kosovo, Lithuania, Poland, Malta, North Macedonia, Romania, Sweden & USA)





Failure



Learning
pessimism

Stabilization of failure

Danger for risk groups!

High probability that students with high risks did not participate in our study!
(students without internet access or tablet, notebook, etc. could also not participate)



Results show a too positive picture!

Lessons Learned for the education for tomorrow

(1) Realisation of measures where positive effects could be expected (according to many scientific studies)

- **Expansion of elementary education (highest return-on-investment)**
- **Expansion of intertwined all-day school**

With high quality!

Purpose of school in Austria

**Educational
Minimum
Participatory Justice**

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„... Jede*r Jugendliche soll ... *befähigt werden*, am Kultur- und Wirtschaftsleben Österreichs, Europas und der Welt *teilzunehmen*“ .

Equal Opportunity

Bundesverfassung Art. 14 B-VG i. d. F. BGBl. I Nr. 31/2005

Purpose of school in Austria

**Social index/
Opportunity index**

Schule soll „... der gesamten Bevölkerung, *unabhängig von Herkunft, sozialer Lage und finanziellem Hintergrund*, unter steter Sicherung und Weiterentwicklung bestmöglicher Qualität ein höchstmögliches Bildungsniveau“ sichern.

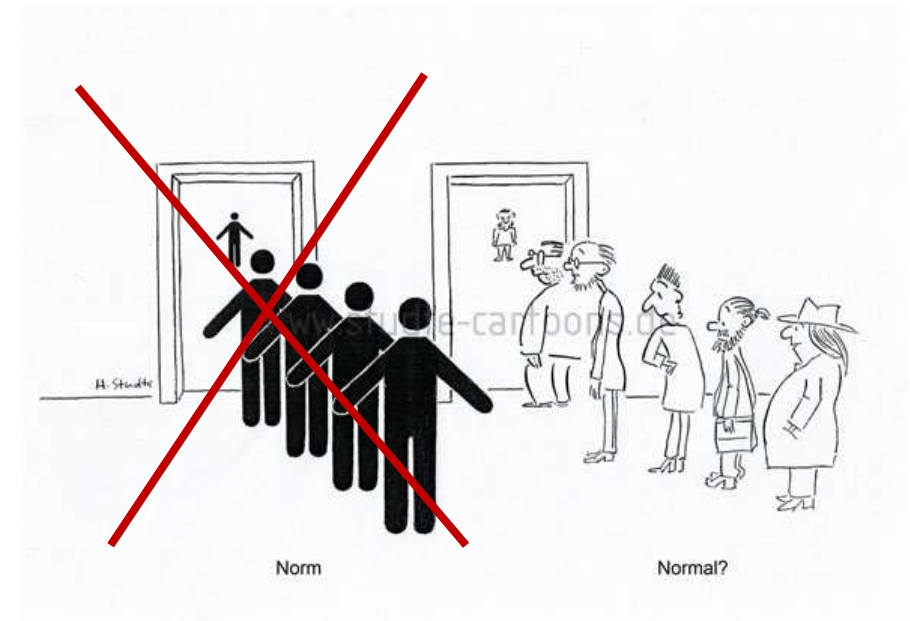
„... Jede*r Jugendliche soll ... *befähigt werden*, am Kultur- und Wirtschaftsleben Österreichs, Europas und der Welt *teilzunehmen*“ .

**Mandatory basic
education**

Bundesverfassung Art. 14 B-VG i. d. F. BGBl. I Nr. 31/2005

Diversity = Strength

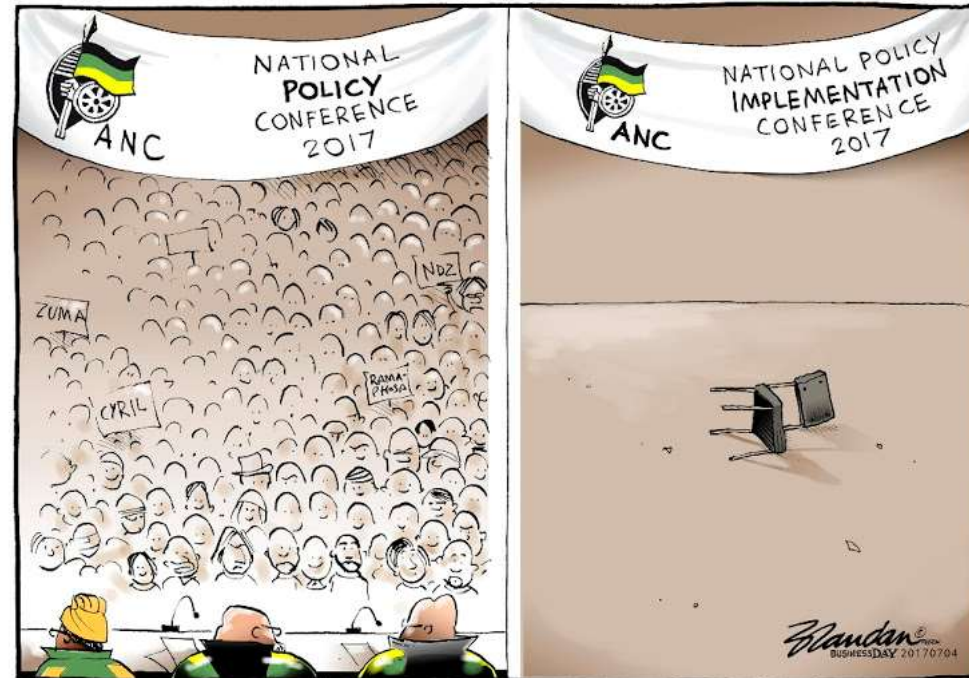
- ➔ Mandatory basic education
(most relevant: meaningful reading,
literacy)
- ➔ But significant: promotion of
individual interests and talents



H.Studte Cartoons

(2) Picking up findings from Implementation Science

So far, the implementation of political measures is mostly neglected



Challenges

for policy and administration

- Transparent communication of planning and measures
- Consideration and estimation of non-intended side-effects of measures
- Development of implementation concepts for planned measures (thought of by the target groups) and supervision of the implementation via evaluation
- Balance between necessary regulations and leeway in implementation on-site (promotion of responsibility!)
- Reflection of previous measures
- Evidence based policy

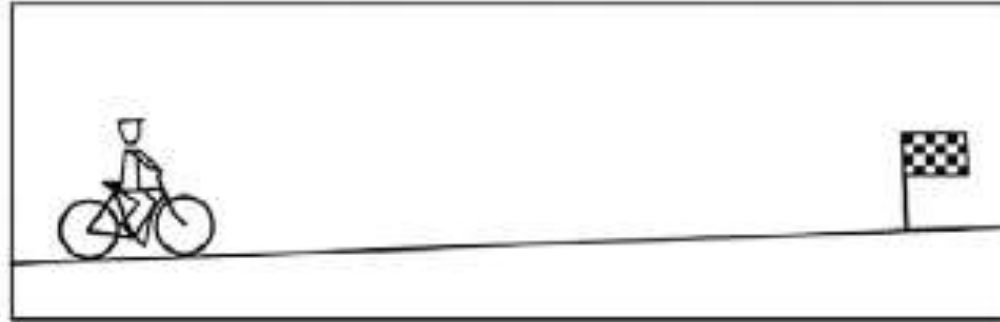
(3) Thinking the educational system, curricula and trainings from the student/ learner perspective

„What knowledge, what competencies (young) people will need for the world of tomorrow?“

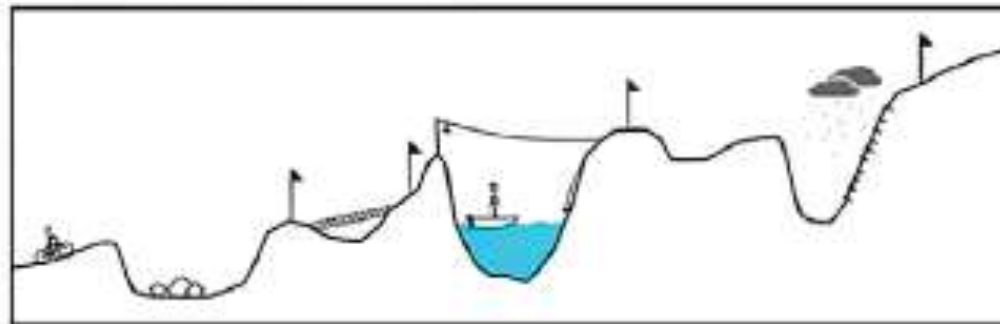


The world of tomorrow?

Your plan



Reality



What should young people be capable of in the world of tomorrow?

21st Century Skills

Learning and Innovation "The 4 C's"	Digital Literacy	Career and Life
Critical thinking & problem solving	Information literacy	Flexibility & adaptability
Creativity and innovation	Media Literacy	Initiative & self-direction
Communication	ICT Literacy	Social & cross-cultural interaction
Collaboration		Productivity & Accountability
		Leadership & responsibility

Table 1 - P21 Skills

What should **young people** be capable of in the world of tomorrow?

- Actively dealing with change
- Managing digital media confidently
- Learning self-regulated
- Realising responsibility
- Appreciating learning and education
- Having self-confidence and courage
- Working in teams and managing conflicts
- Realising solidarity and inclusion
-



LLL

What should **adults** be capable of in the world of tomorrow?

- Actively dealing with change
- Managing digital media confidently
- Working and learning self-regulated
- Realising responsibility
- Appreciating learning and education
- Having self-confidence and courage
- Working in teams and managing conflicts
- Realising solidarity and inclusion
-



LLL

What should adults be capable of in the world of tomorrow?

- Actively dealing with change
- Managing digital media
- Working and learning
- Realising
- An
- In
- Working systems and managing conflicts
- Realising solidarity and inclusion
-

**Role models for children
and youth**



LLL

... and

Psychological basic needs

need for competence

need for autonomy

need for social relatedness

**should be satisfied to promote learning
motivation and well-being**

➔ Task/ challenge for schools, companies, etc.

Recommended

Evidence based education

Problem based education

Competence based education



Foerst, N., Klug, J., Jöstl, G., Spiel, C. & Schober, B. (2017) **Knowledge vs Action**: Discrepancies in University Students' Knowledge about and Self-Reported Use of Self-Regulated Learning Strategies. *Frontiers in Psychology*, 8, 1-12. doi: 10.3389/fpsyg.2017.01288

Recommended Use of Learning analytics

= the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs.



Taylorred tasks for the learners

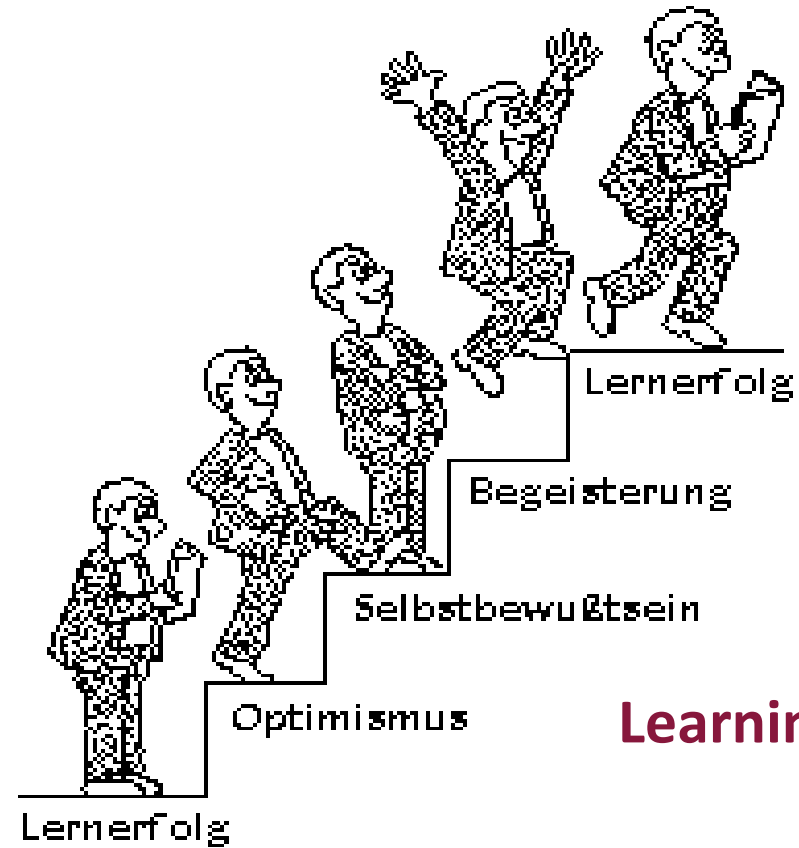
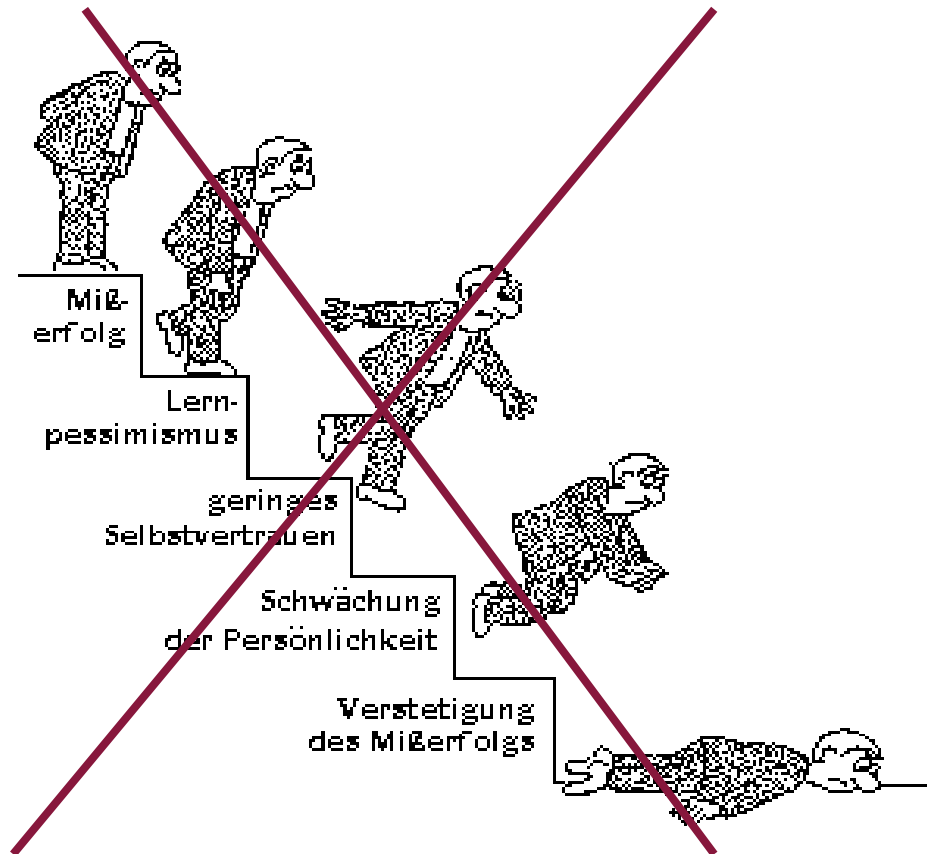
Recommended Application of the Flipped Classroom model

= a teaching method in which students first learn about a new subject at home, especially online, and then have discussions on it in class/ in group.

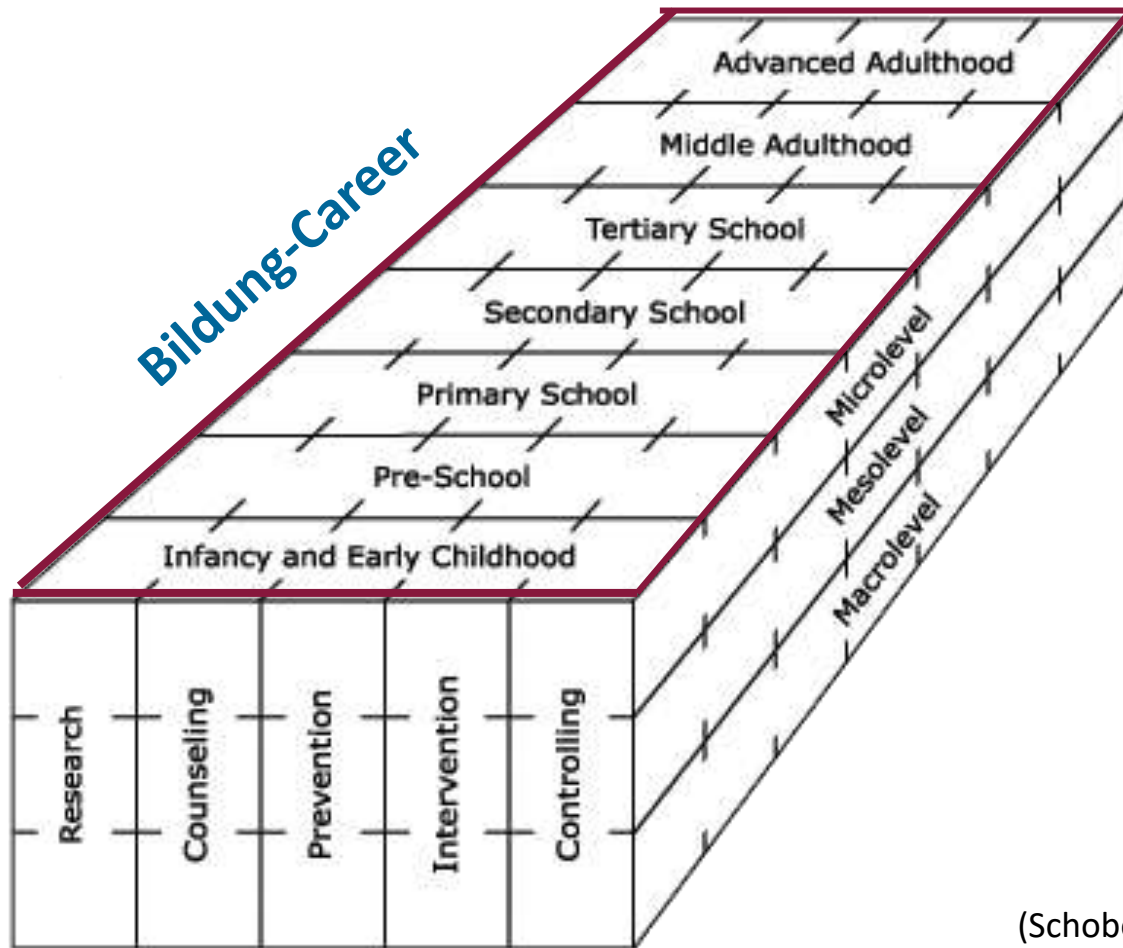


Taylorred learning time

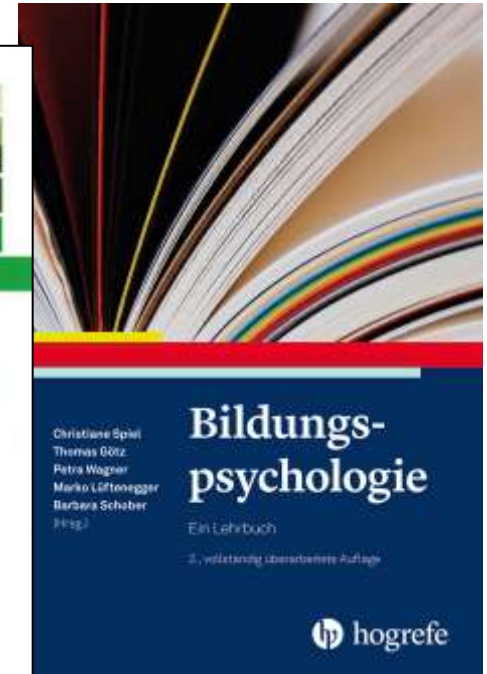
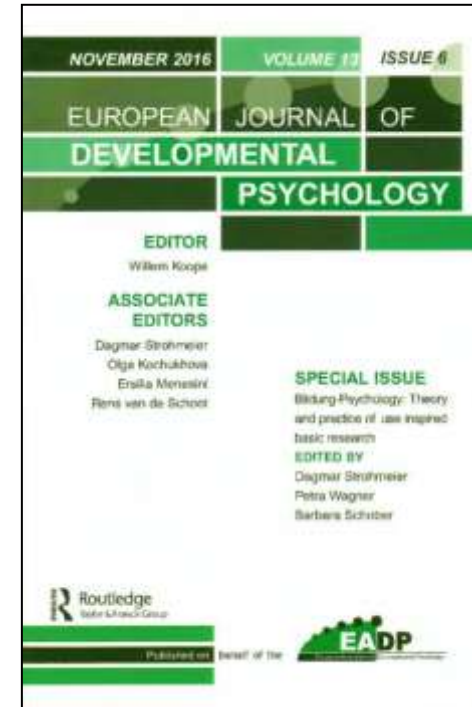
Consequences



Focus: entire educational career



Activity Levels



(Schober et al., 2016; Spiel & Reimann, 2005, 2006; Spiel et al., 2008, 2010, 2011, 2012, 2013, 2014, 2022; Spiel, 2012)

Functional Areas

**Education ist the most important
policy field!**

Education policy =

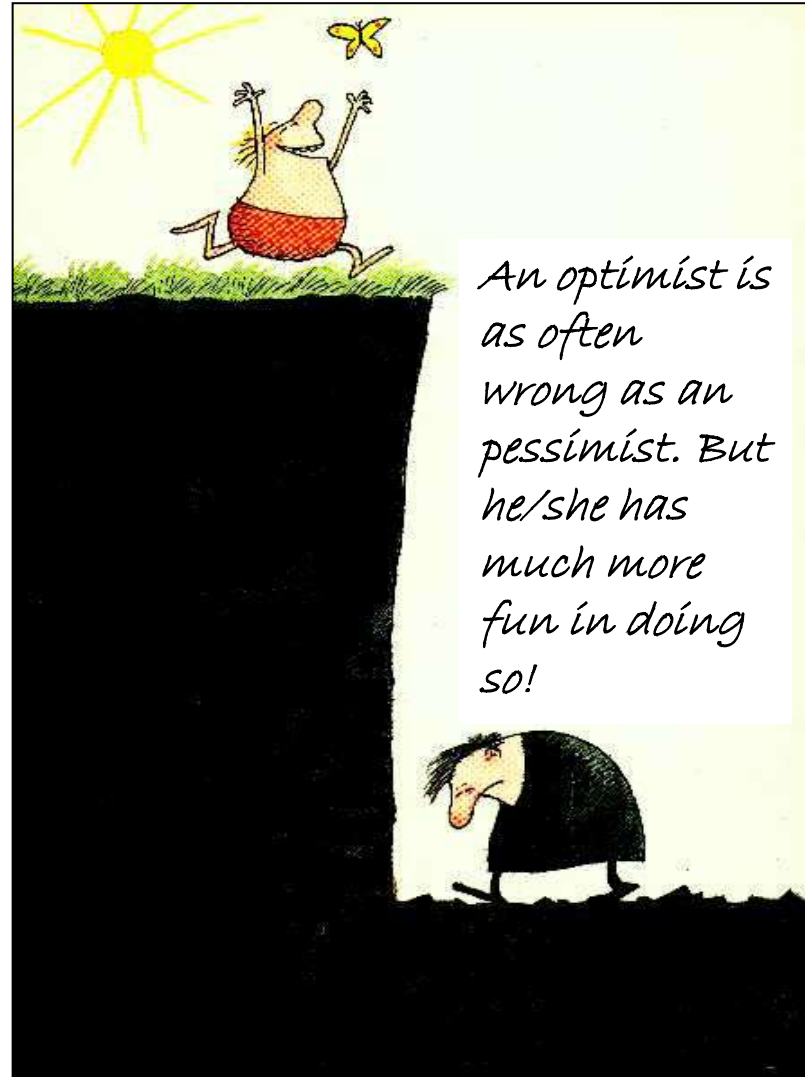
**social policy, economic policy, health
policy, judicial policy, environmental
policy, financial policy, ...**

Change processes sometimes need courage ...

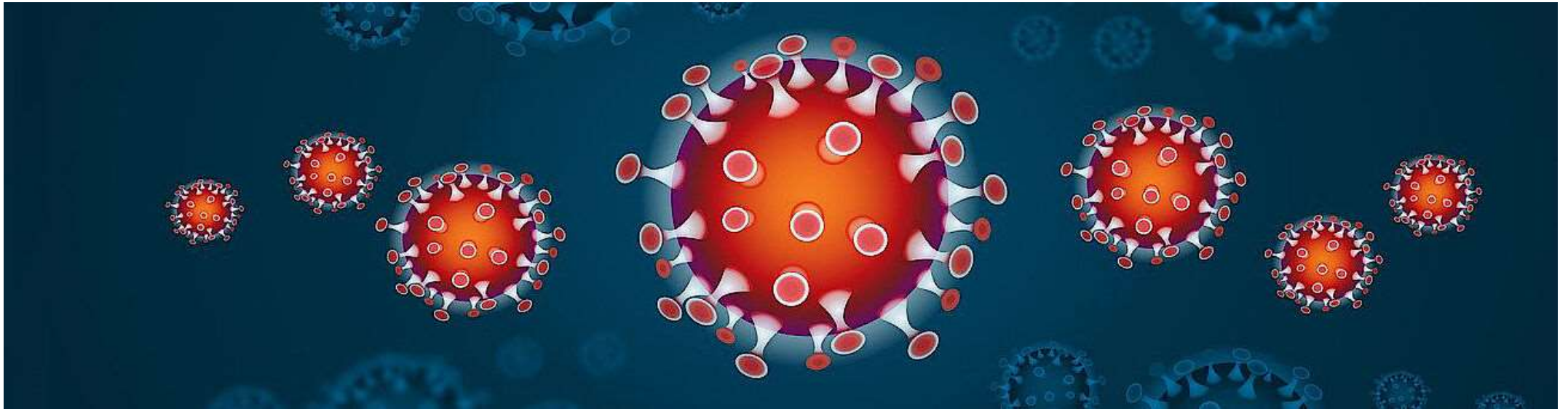


... but in particular they need patience!

Change processes also need optimism



Thank you for the attention!



<https://lernencovid19.univie.ac.at/>

<https://bildung-psy.univie.ac.at/ueber-uns/professuren/christiane-spiel/>