



To day , I'd like to speak about :

# EDUCATION AND RESEACH IN SOCIETY 5.0 AND NEW NORMAL



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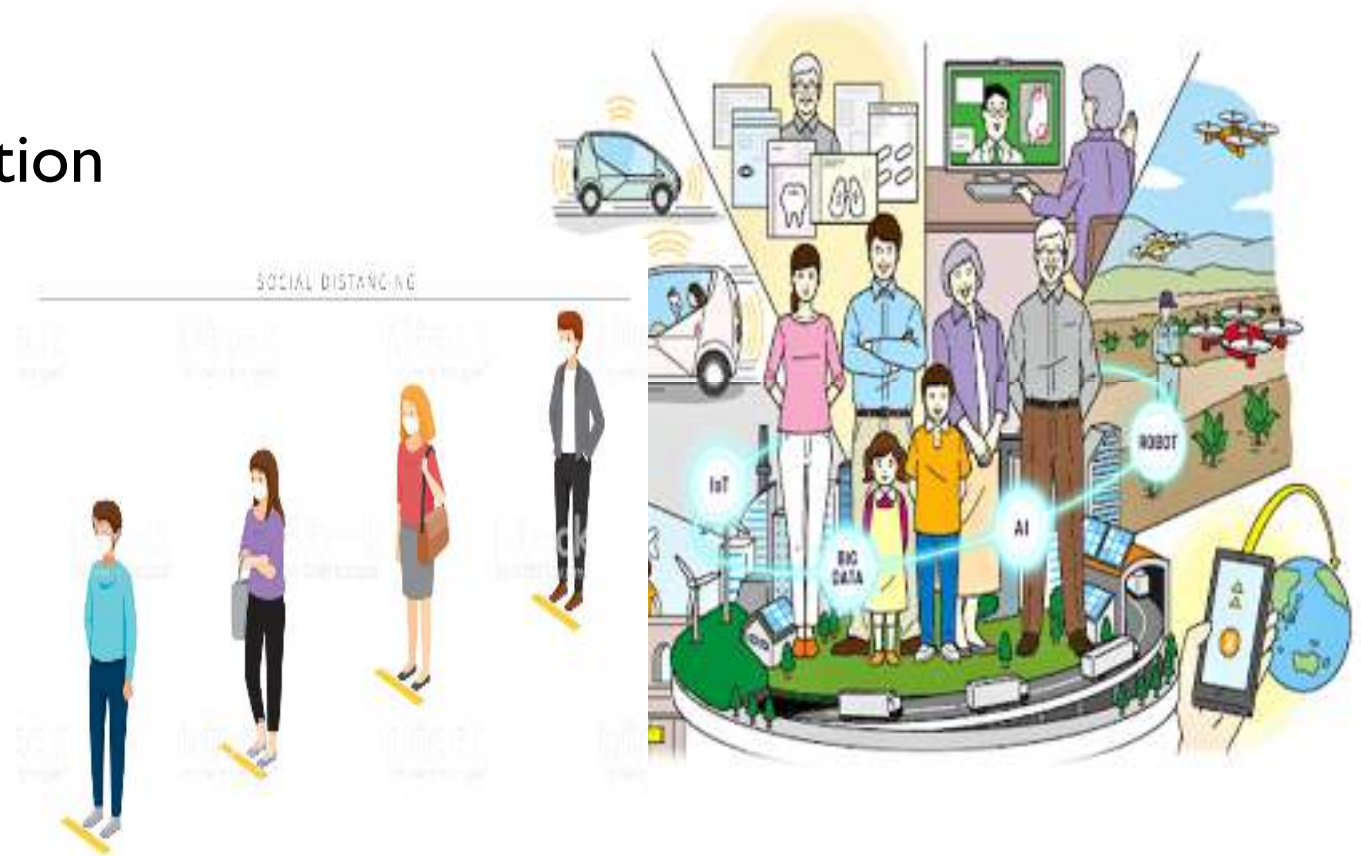
The objective of this presentation is to present ....

Society 5.0

Social transformation

Education 5.0

New Normal





# INTRODUCTION

- Global sustainability **problems pose serious challenges for humanity**. In handling these problems education for sustainable development (ESD) is seen as important.
- Studies indicate that future dimensions are not always included in ESD and that **many young people are pessimistic** concerning the global future.
- Therefore, one could argue that **a focus on anticipatory emotions**, especially hope, should be included in ESD.
- ESD and the global future by grounding it in **theories from different disciplines** and in empirical research about young people, hope, and climate change.
- It can **help people** face and do something constructive with their worries about the global future.



# INTRODUCTION

- **Dehumanization and devaluation of education** are social phenomena which continuously occur in people's lives in the era of the industrial revolution (Dwiningrum, 2017).
- **The role of education is increasingly reduced** in the era of industrial revolution 4.0 if its social role is not revitalized.
- Education experts state that **the education process has not yet optimally produced well-characterized individuals** in facing unpredictable changes and adapting to the challenges of the industrial revolution 4.0. In fact, education has an important role in building and shaping individuals with good characters.
- **The power of educators** in mastering the basic concepts of educational sciences is an important basis for equipping **students to have a more comprehensive frame of thinking**.
- Therefore, studies on educational theories and teaching methods should be designed appropriately and applicably according to education in the era of the industrial revolution 4.0. In addition, **educators in the era of the industrial revolution 4.0 must be able to apply the basic concepts of anticipatory education according to the needs of society; educating is not just a teaching process**, but it is a process to make every human being an independent learner in responding to the really accelerated developments in science and technology.



# INTRODUCTION

- The increasingly accelerated technological development has been **reducing the existence of human being**.
- The Japanese concept of Society 5.0 is **actually an effort to put back the foundations of humanity in the development era of the industrial revolution 4.0**.
- It is the goal of Society 5.0 **to create a human-centric society** in which both economic development and the resolution of societal challenges are achieved, and people can enjoy a high quality of life that is fully active and comfortable.
- This national vision raised by Japan **is to strive for a new, human-centered society**, at the same time resolving a variety of societal issues
- All in all, **the era of industrial revolution 4.0 is known as cyber- physical system (CPS) which is an integration between physical systems, computing, and communication, while society 5.0 is a refinement of CPS, turning cyber-physical-human systems into a central issue in the transitional era**. In this case, humans do not only play the role as objects (passive elements), but also play an active role as subjects (active players) who work with the physical system in achieving certain goals

# INTRODUCTION

- The Corona Virus Disease-19 (COVID-19) pandemic has caused global crisis.
- The pandemic necessitates massive behaviour changes such as wearing mask, frequent hand washing, and physical distancing to prevent the spread of the infection.



# INTRODUCTION

- Pandemic of COVID-19 requires a very comprehensive and multidimensional treatment to achieve normal living conditions. Every country in the world has a different way to control the spread of COVID-19 (Julied Bedford, Delia Enria, Joha Giesecke, Chikwe Ihekweazu, Gary Kobiber (2020).
- The number of people affected by Covid-19 has not decreased significantly. In fact, there is a tendency for the process of movement to spread more widely between countries, between cities, between regions.
- The impact of the COVID-19 pandemic is not limited to health issues, but has begun to be felt in all aspects of community life.



## The presentation will take about

1. the importance of social transformation and learning to achieve anticipatory educational goals.
2. the importance of strengthening school capital to improve resilience in facing the challenges of life in society 5.





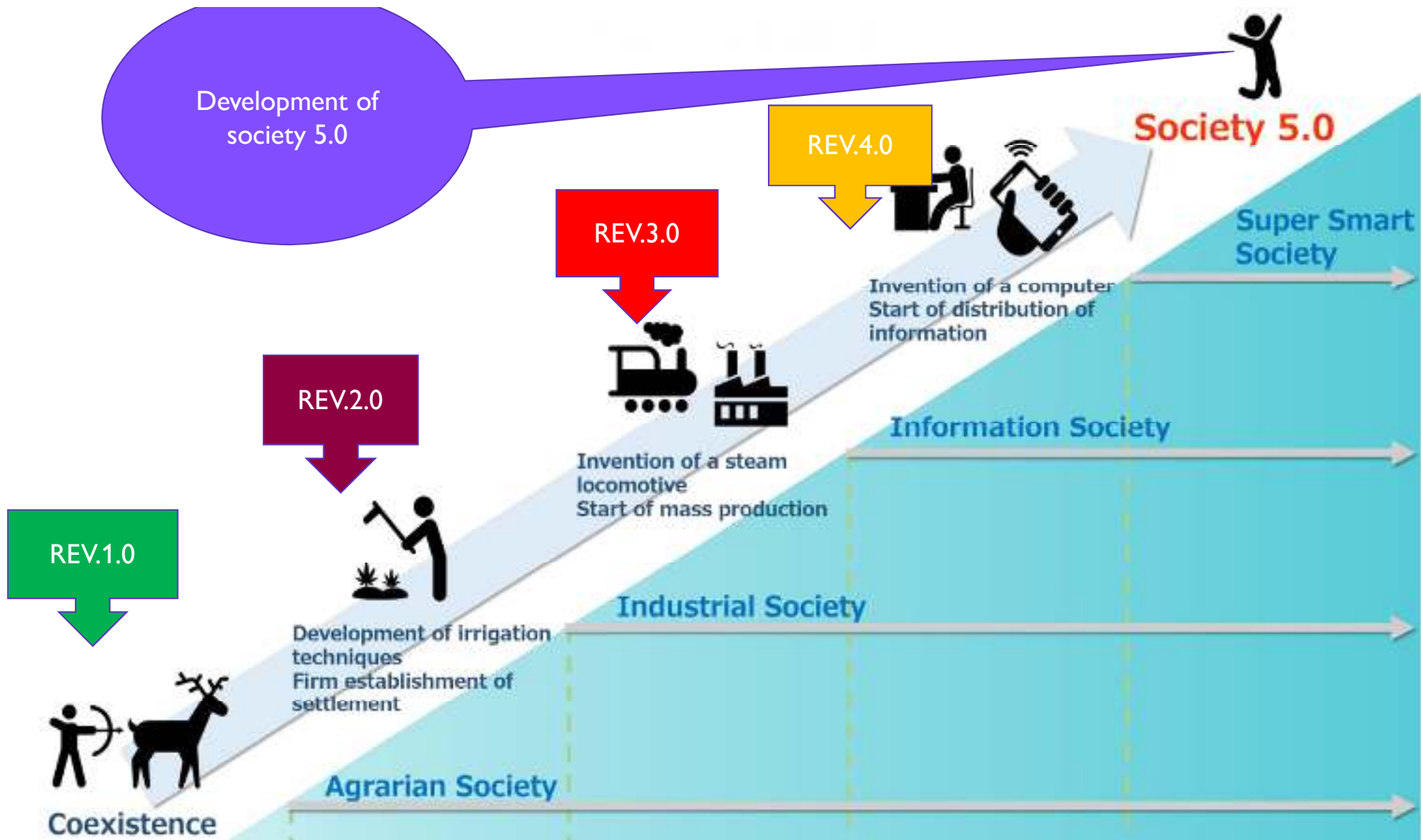
# Literatur review

# NEW NORMAL

- The definition of new normal is a scenario to accelerate the handling of COVID -19 in health and socio-economic aspects. The Indonesian government has announced plans to implement a new normal scenario with epidemiological studies and regional readiness staking into account (<https://tirto.id/fDCw>).
- The definition of new normal according to the Government of Indonesia is a new order to adapt to COVID-19. A new order is needed because no definitive vaccine with international standards has yet been found for the treatment of coronavirus. Experts are still working hard to develop and find a vaccine that can be used immediately to control the COVID-19 pandemic. New arrangements, habits and behaviors are based on adaptation to clean and healthy living behaviors

# To the “New Normal”

- **Any step to ease restrictions and transition must ensure** (WHO EUROPE):
  1. That evidence shows COVID-19 transmission is controlled;
  2. That public health and health system capacities including hospitals are in place to identify, isolate, test, trace contacts and quarantine them;
  3. That outbreak risks are minimized in high-vulnerability settings – particularly in elderly homes, mental health facilities and people residing in crowded places;
  4. That workplace preventive measures are established – with physical distancing, handwashing facilities, respiratory etiquette in place;
  5. That importation risks can be managed; and
  6. That communities have a voice and are engaged in the transition.



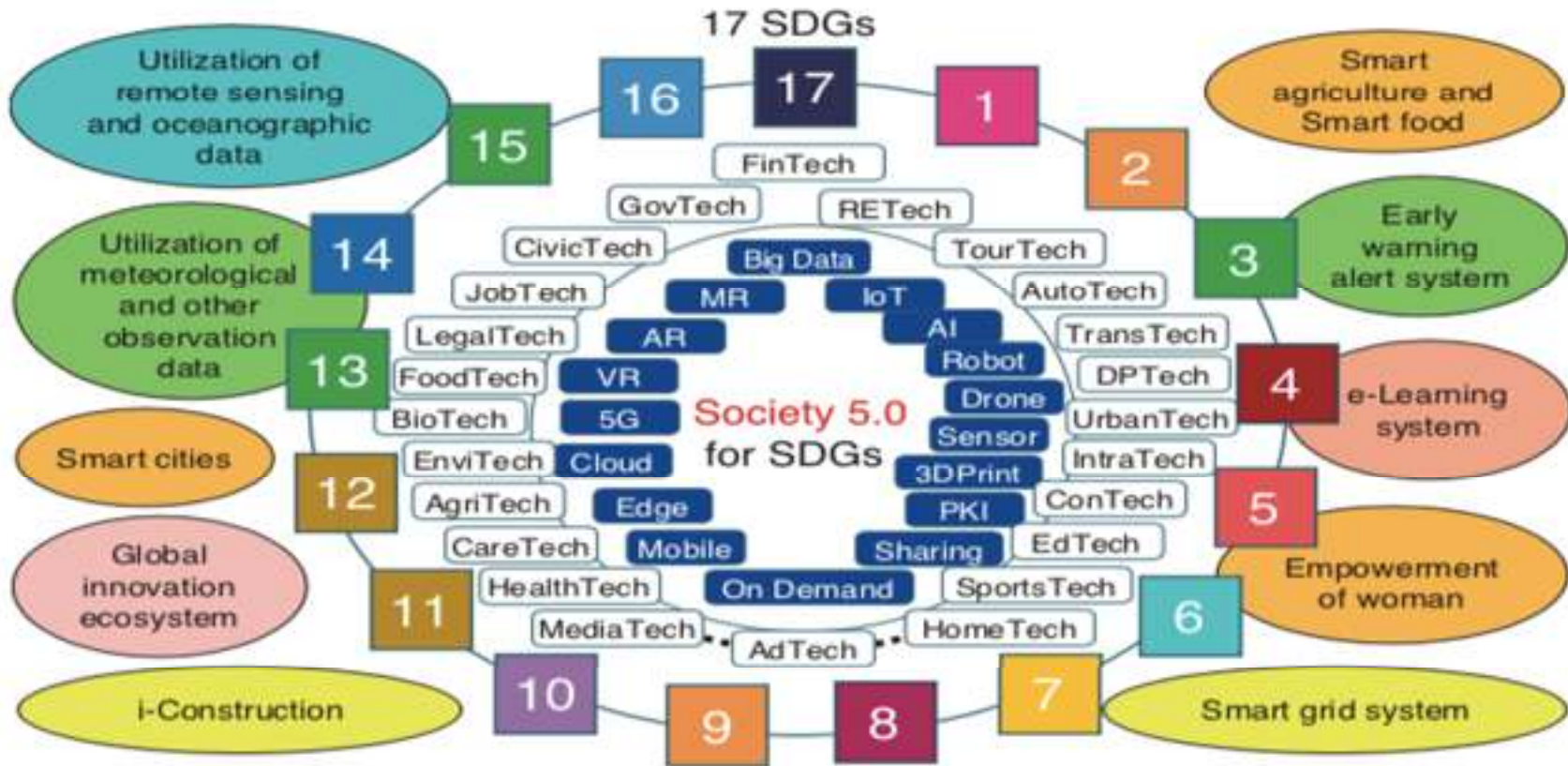
| Title                | Industry 4.0 (Germany)  | Society 5.0 (Japan)  |
|----------------------|---|--|
| Design               | <ul style="list-style-type: none"> <li>• High-Tech Strategy 2025 Action Plan for Germany (BMWi, 2019)</li> <li>• Recommendations for implementing the strategic initiative INDUSTRIE 4.0 (Industrie 4.0 Working Group, 2015)</li> </ul> | <ul style="list-style-type: none"> <li>• 5th Science and Technology Basic Plan (released 2016)</li> <li>• Comprehensive Strategy on Science, Technology and Innovation for 2017 (released 2017)</li> </ul>               |
| Operational strategy | <ul style="list-style-type: none"> <li>• Smart factories</li> <li>• Focus on manufacturing</li> </ul>   | <ul style="list-style-type: none"> <li>• Super-smart society</li> <li>• Society as a whole</li> </ul>  |
| Key processes        | <ul style="list-style-type: none"> <li>• Cyber-physical systems (CPS)</li> <li>• Internet of Things (IoT)</li> <li>• Mass customization</li> </ul>  | <ul style="list-style-type: none"> <li>• High-level convergence of cyberspace and physical space</li> <li>• Balancing economic development with resolution of social issues</li> <li>• Human-oriented society</li> </ul> |

# Society 5.0 as the "Imagination Society".

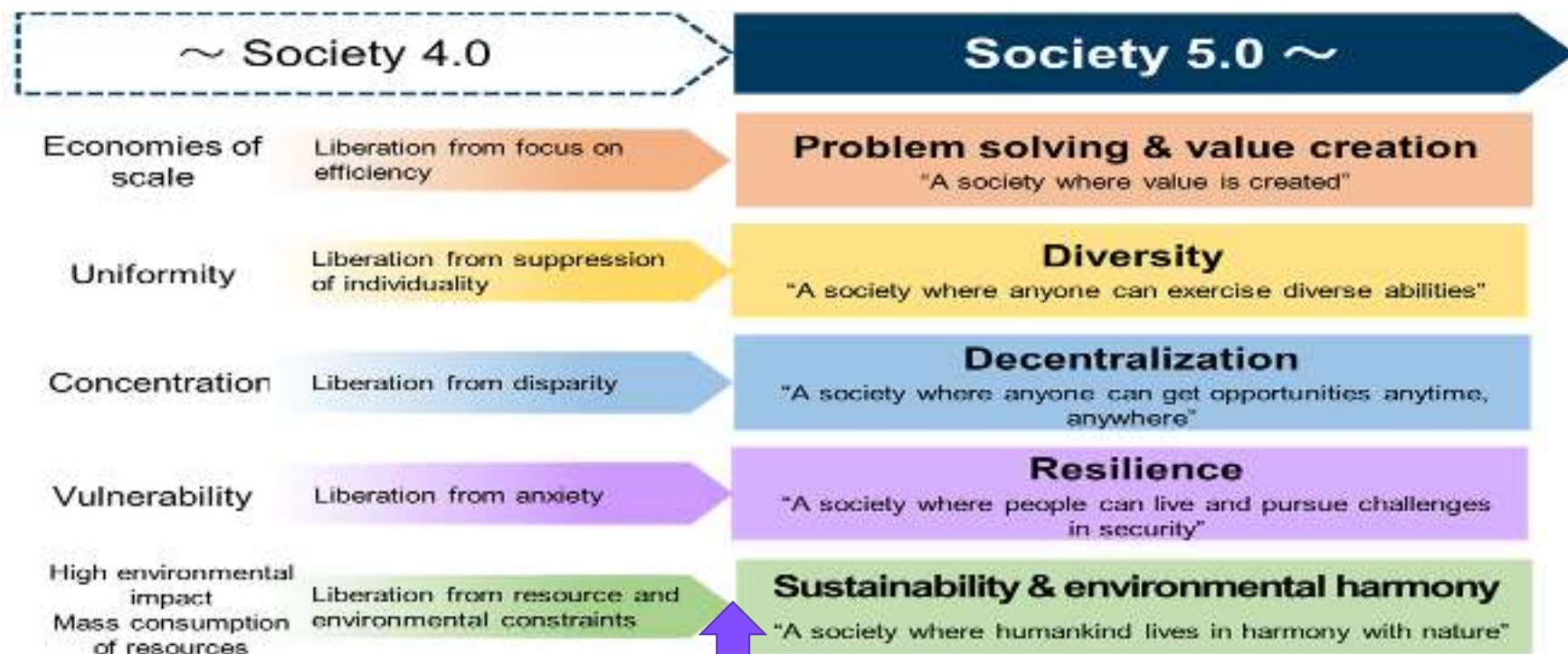
- People will be expected to exercise rich imaginations to identify a variety of needs and challenges scattered across society and the scenarios to solve them, as well as creativity to realize such solutions by using digital technologies and data.
- Society 5.0 will be an Imagination Society, where digital transformation combines with the creativity of diverse people to bring about "problem solving" and "value creation" that lead us to sustainable development.
- It is a concept that can contribute to the achievement of the Sustainable Development Goals (SDGs) adopted by the United Nations.

CHART 3

### Sustainable development goals



Source: Prepared by the author based on material from the Japan Business Federation (Keidanren) "Society 5.0 for SDGs".



**We need social transformation ?**  
because there are many aspects that change the structure and culture of society



# Social Transformations

- The world is undergoing important social transformations driven by **the impact of globalization**, global environmental change and economic and financial crises, resulting in growing inequalities, extreme poverty, exclusion and the denial of basic human rights.
- Social transformation means **the restructuring of all aspects of life**; from culture to social relations; from politics to economy; from the way we think to the way we live.
- Transformations demonstrate the urge for **innovative solutions** conducive to universal values of peace, human dignity, gender equality and non-violence and non-discrimination.

# The role of **transformation** in learning and education for sustainability



**WE need transformation education ...  
because education plays a role in building a quality of the nation.**



**THE GOAL OF EDUCATION 5.0 NEEDED IN REVOLUTION INDUSTRY 4.0 → SOCIETY 5 IS ANTICIPATORY EDUCATION... WHAT ARE THE STRATEGIES FOR IMPLEMENTING ANTICIPATORY EDUCATION?**

- Balance between spiritual and physical education
- Balance between natural knowledge and social and cultural knowledge
- Balance between current and contemporary knowledge to come

## Why ...we need to design of anticipatory education → prepare future lives....

- This is very important, so that students can prepare for not only their current but also future lives.
- Currently Indonesia is facing "the word system" which means students are accustomed to seeing the existence of a nation in relation to other nations and world problems and instilling national and regional awareness.

# Education in society 5.0

schools should begin to change learning with a curriculum that applies the principles.....?



Are all schools ready to apply the three principles?

# Social capital : the process of learning transformation

- Support for building a transformative society 5.0 requires strengthening social capital as **social energy** which can be explored in people's lives.
- Social capital will facilitate the process of learning transformation towards society 5.0, because all elements in social capital can be used **to help overcome various obstacles faced by society 5.0.**
- Social capital **plays a really important role in learning transformation.** As explained by Bourdieu (Field, 2010) social capital is a number of resources, actual virtual which gather in an individual or groups because it has a durable network in the form of a reciprocal relationship of introductions and recognition that is slightly institutionalized.
- Social capital is needed to form **a social agent in constructing the world around it.**

# Learning transformation --supporting the proses of education in society 5.0

- Learning transformation requires a high commitment.
- to motivate the emergence of innovative ideas in changing contents and methods to be realized.
- for improving the curriculum to adjust to the relevant socio-economic and cultural changes.
- for developmending require all the parties to be flexible and proactive. In particular, education must instill a high adaptive attitude to its students. Today's world moves at lightning speed requiring curious, flexible and proactive people.

# WHY IS ROADMAP IMPORTANT?

- as directions.
- a document that clearly explains a plan, and details how the strategy is carried out, and becomes a reference in running the program.
- Milestones are research activities at a certain time pace (5-20 years) carried out by researchers (monodisciplinary) and/or research groups either multidisciplinary or inter-disciplinary or industrial R&D.



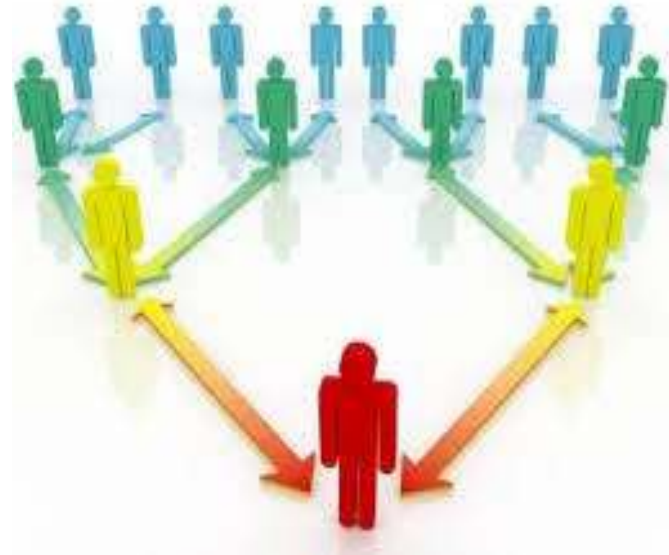


# PURPOSE OF ROAD MAP

- The instrument guides research change by looking at its characteristics.
- unifying all research activities in a predetermined environment.
- guide the activities at the start and finish sections until the research program is declared a success.
- a reference for any research to be carried out.

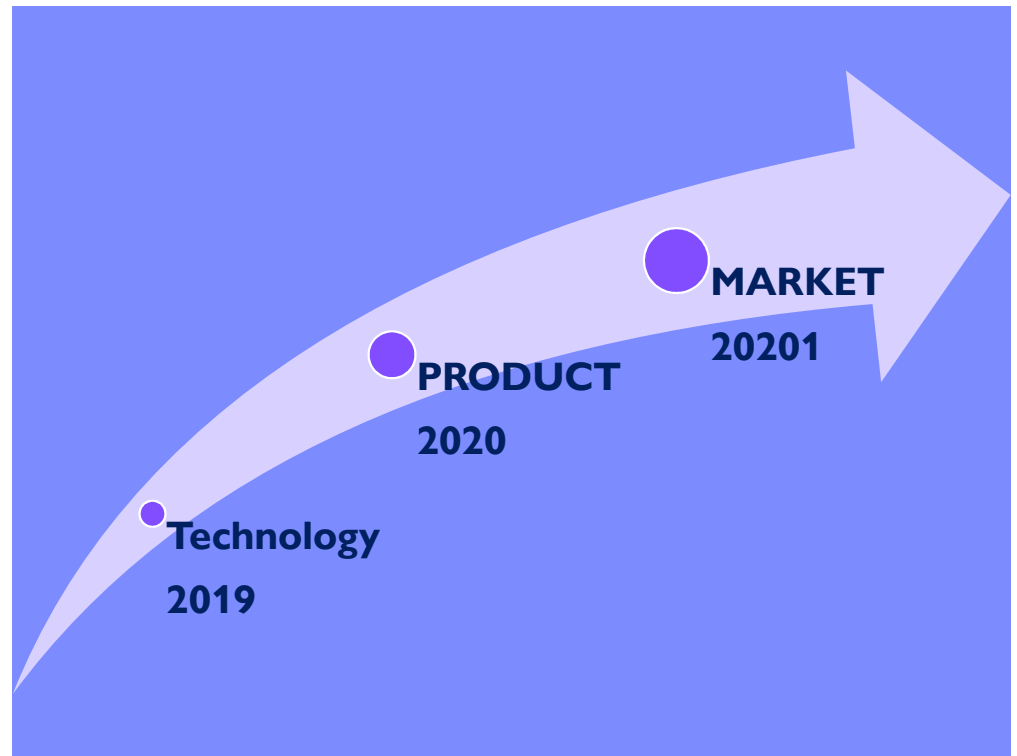


# ROAD MAP FOR WHO?



# FOR CENTRAL EDUCATION - RESEARCH TOPIC - ROADMAP

LEADING RESEARCH OF  
UNIVERSITY



# LECTURERS NEED TO MAKE A ROAD MAP?

- The research target that a researcher wants to achieve is to develop his professionalism.
- Describe the researcher's journey related to their expertise.
- Shows the profile of researchers about the fields that have been, are being, and will be researched (within a certain period of time).
- Strengthen their existence as a researcher in the same field or between fields in the same focus of study.

**I WANT TO MAKE A ROAD  
MAP...?  
WHAT SHOULD I DO**

Sense of crisis ?  
Sense of urgency ?





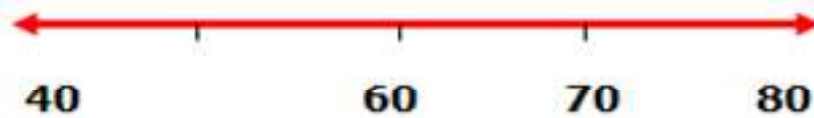
Problem... what is interesting to research ???



Confused ???  
WANT TO RESEARCH WHAT?



## Proyeksi: Who am I?



- *Akan Apa*
- *Akan Mengapa*
- *Akan Bagaimana*



- ♂ Dalam **KELUARGA**
- ♂ Dalam **BEKERJA**
- ♂ Dalam **MASYARAKAT**



# ABILITIES OF A RESEARCHER



BAGAIMANA DENGAN KEMAMPUAN ANDA ?



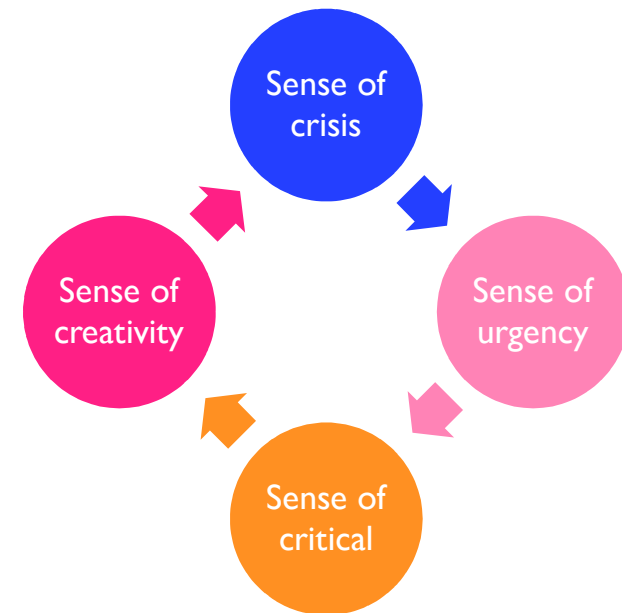


# BUILD A RESEARCHER MINDSET?

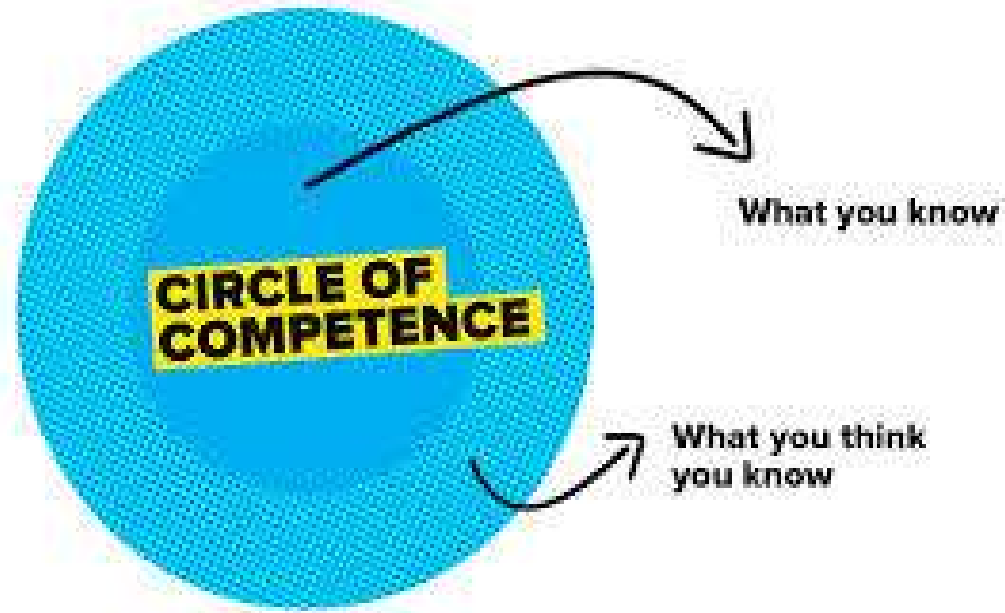
## PRINCIPLES OF RESEARCH



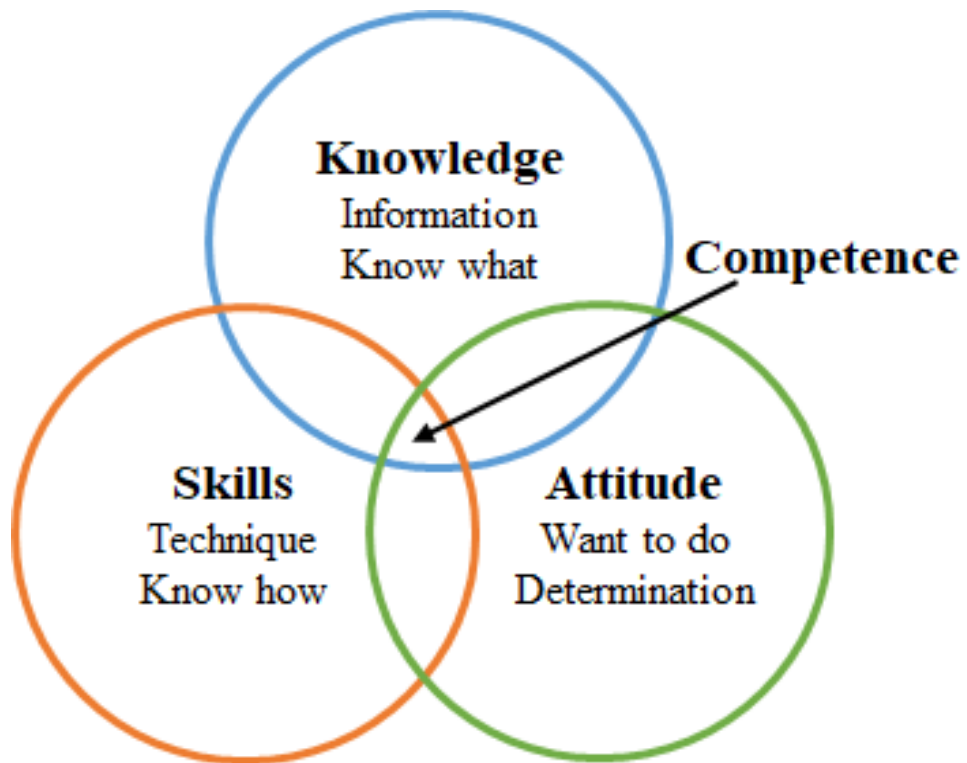
## RESEARCH SENSE



# COMPETENCE IS DYNAMIC?



# MAIN CAPITAL AS A RESEARCHER?



## ANALISIS KEMAMPUAN



# HOW DO YOU DESIGN A ROAD MAP?

- Choose smart and precise "WHAT ARE YOU WANT TO EXPERT?"
- Gradually design your broad / branched desires to become more focused.
- Expertise cannot be achieved, and recognized in an instant way, but requires **COMMITMENT, DISCIPLINE, QUALITY OF WORK / RESEARCH** that is maintained.
- The decision to become a particular expert can be developed through reading journals, digging up information, developing knowledge that has been done by previous researchers.
- The existence of your expertise is also supported by the ability to carry out collaborative research and journal writing.

Semangat berkarya  
dan berekspresi diri  
dalam tulisan yang  
bermakna



AYOO SEGERA PENULIS  
PROPOSAL PENELITIAN  
..SESUAI DENGAN ROAD  
MAP ANDA.....kemas jadi  
BUKU REFERENSI



# New Normal Starter Kit

RI menyongsong new normal. Pada 5 Juni nanti, PNS mulai bekerja. Agar aktivitas Anda produktif namun tetap terlindungi dari virus Corona, ini perlengkapan yang perlu Anda persiapkan.

Siapkan perlengkapan ini:



Masker



Hand sanitizer



Sabun cair



Tisu



Peralatan makan

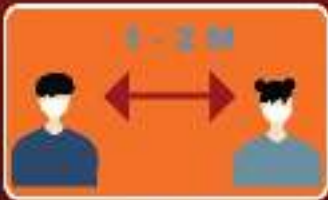


Perlengkapan ibadah: sajadah, mukena



Bawa helm bila sering gunakan ojol

Perilaku:



Jaga jarak



Tidak berjabat tangan



Mandi-ganti baju sebelum kontak dengan keluarga



# NEW NORMAL

# METHODOLOGY

- To illustrate the profile of school resilience, a survey was conducted at 2-3 schools from every cities as Jakarta, Yogyakarta, Aceh, Medan, Makassar and Papua, the total of schools 21. The number of students who became respondents was 823 person.
- Instrument resilience school created from a concept developed by Henderson, N., & Milstein, M.(2003). *Resiliency in schools*.
- Instrument personal resilience created from a concept developed by Reivich,K. & Shatte, A. (2002). *The Resilience Factor*.
- Qualitative data were obtained from interviews and FGDs with several school principals and teachers related to strategies carried out to increase school resilience in facing education in the era of the industrial revolution 4.0.

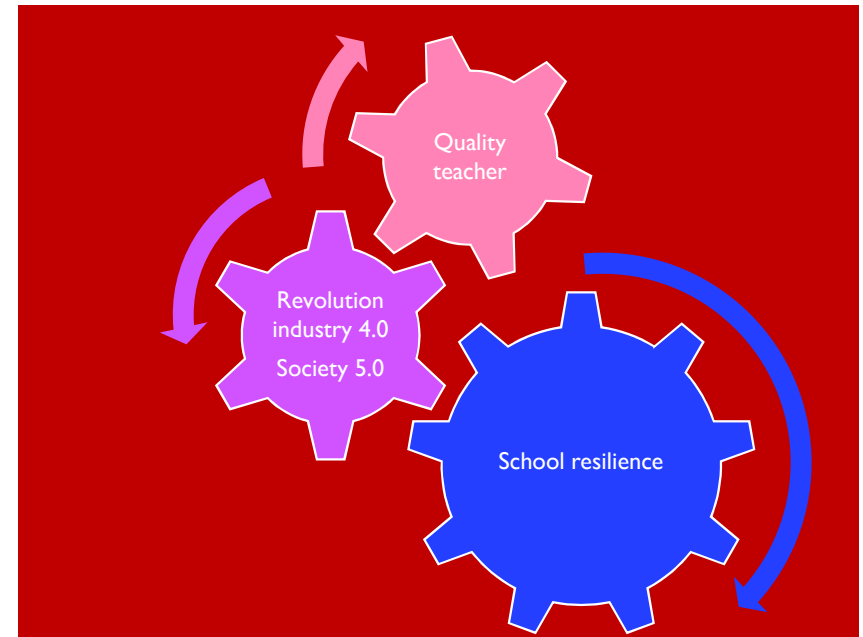
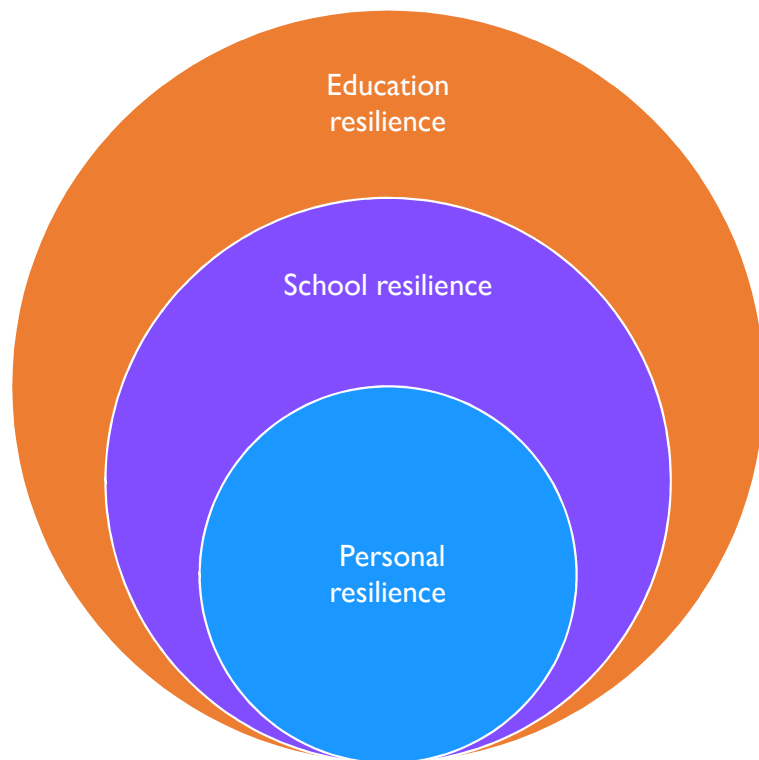


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# Results and Discussion



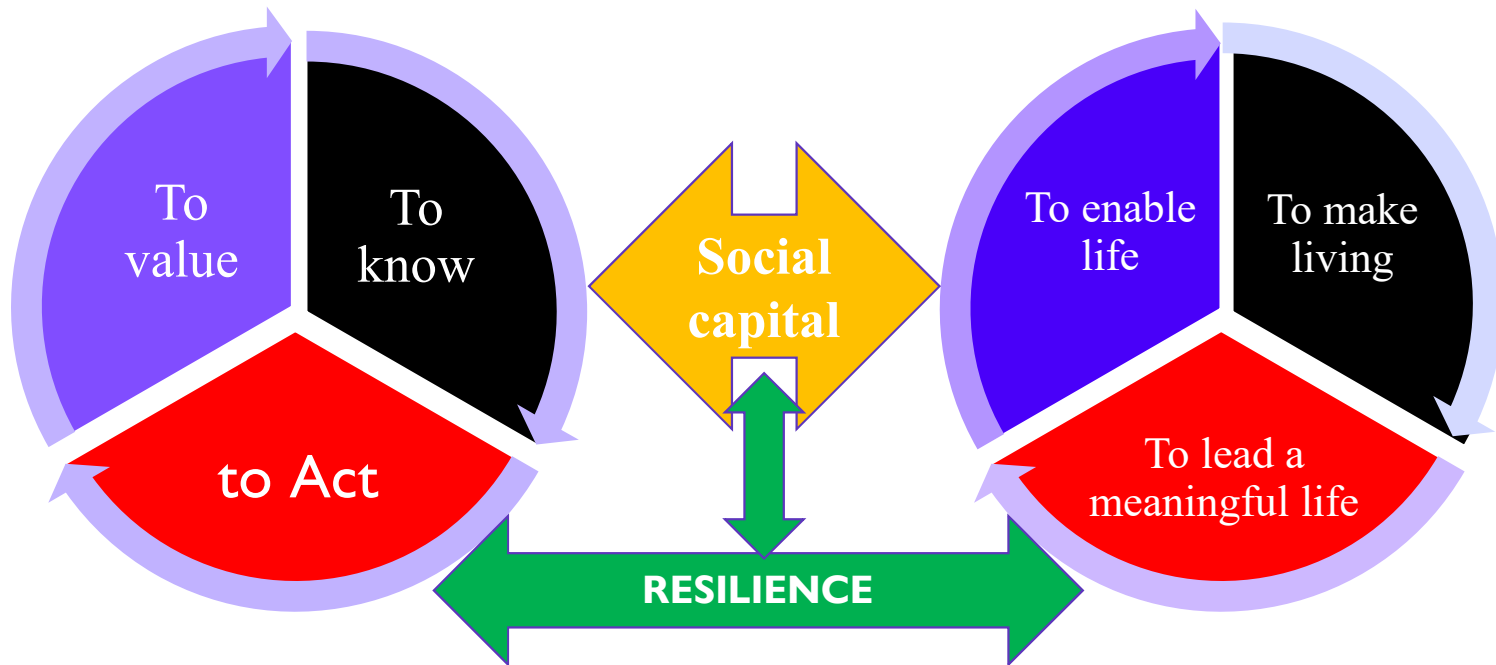
# DYNAMICS OF RESILIENCE IN EDUCATION



To achieve anticipatory education requires a learning process (Buchori, 2001). Education will be meaningful if the school gives students the ability to .....

### Principle of learning 5.0

### Meaning of education



# Social Capital

- Schools with the power of social capital can play a role and move as a medium for students to be motivated in developing their personal resources more optimally, and having the ability to interact in a stronger network..
- Furthermore, each school has an organization network, as social capital can extend to include resources embedded in other organizations
- In the context of the school as a social organization it can develop students' social capital depending on how the school positions in relation to other schools.

# TO RESPONSE AND ADAPT TO ACCELERATIVE CHANGES TOWARD SOCIETY 5.0 WE MUST BE RESILIENCE ?



*Doing Well from the  
Inside Out programme*



© Action for Happiness 2012



# MEANING OF RESILIENCE

The capacity....

- to respond healthily and productively when faced with adversity or trauma, which is necessary for managing the stresses of everyday life (Reivich & Shatte, 2002)
- to survive and remain psychologically stable and healthy after going through traumatic events (Samuel,2010)
- to adapt positively when conditions are unpleasant and full of risks. (Nurinayanti & Atiudin 2011)
- to revive from negative experiences that reflect the innate qualities of the individual or are the result of learning and experiences.
- to adapt and develop positively. (Roberts (2007: 17)

# RESIELENCE – IMPORTANT ?



- This social reality proves that Indonesia still has socio-economic disparities, strengthening social resilience, school resilience is needed in facing challenges in the era of the industrial revolution 4.0.
- Resilience is the process of developing the capacity to withstand physical, social, and emotional challenges
- School resilience is a process of developing the social capacity to survive the challenges of education in society 5.0
- School resilience is the resilience and adaptability that schools have in dealing with various problems and changes by taking proactive, anticipatory, and innovative actions.

# PROBLEM OF RESILIENCE ?

- School resilience is still weak. "Bonding social capital" is an important element in building strong collaboration for social relations in schools to improve school quality.
- School resilience should be strong in facing the challenges and demands of change with their social roles, and resilient teachers will have quality work in dealing with very complex educational problems in a professional teacher.



# SCHOOL RESILIENCE

To be able to prepare students in the era of society 5.0 schools must be resilient. There are 6 aspects that need to be developed ...

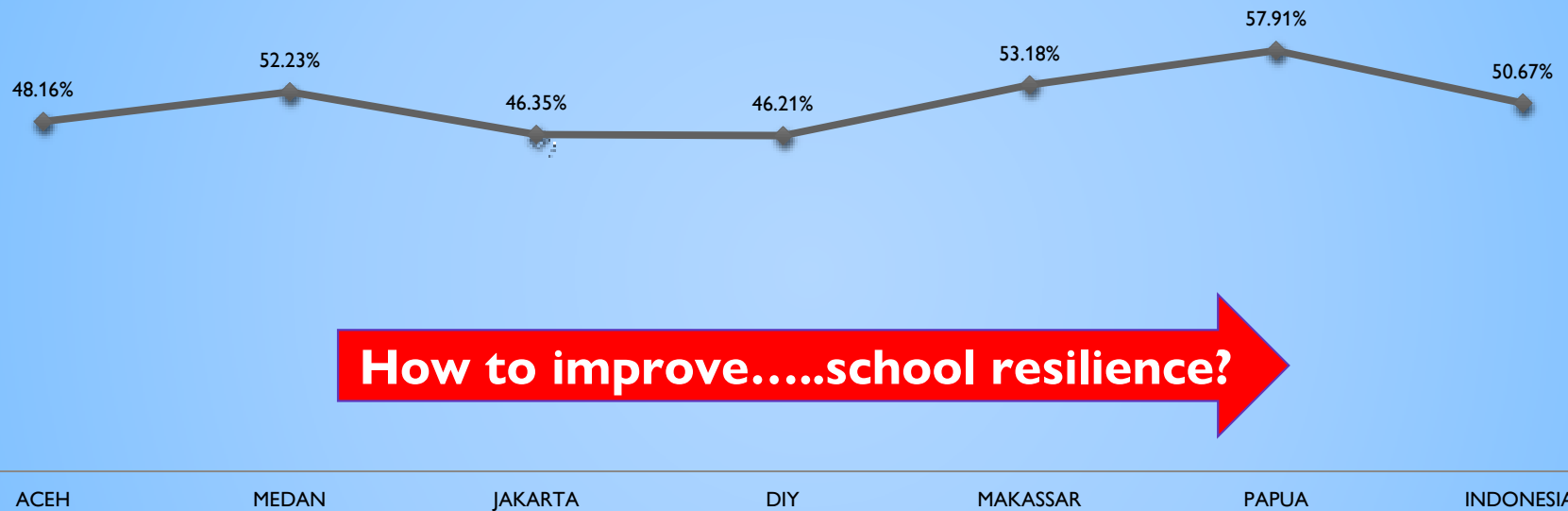


Henderson, N., & Milstein, M





## SCHOOL RESILIENCE HIGH SCHOOL IN INDONESIA (ACEH, MEDAN, JAKARTA, YOGYAKARTA, MAKASSAR DAN PAPUA)



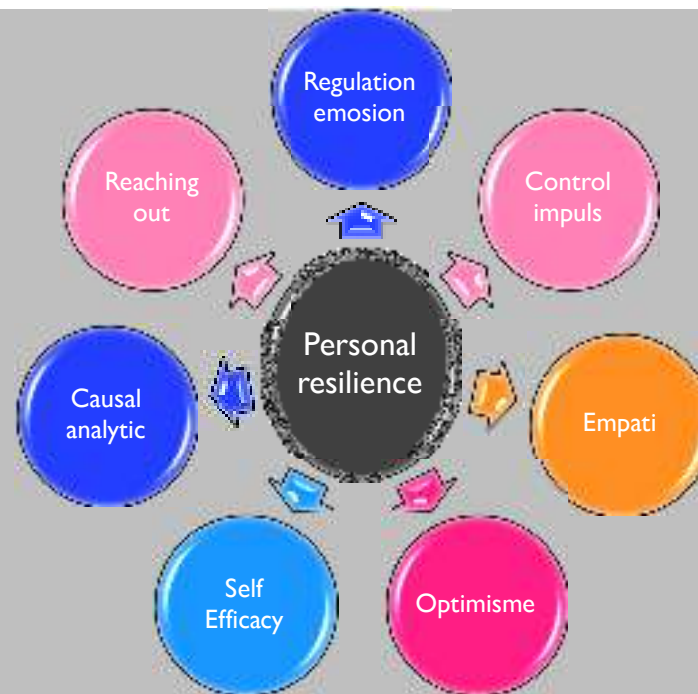
How to improve....school resilience?

| Category  | Score     |
|-----------|-----------|
| Very low  | <41       |
| Low       | 41 - <56  |
| Quite Low | 56 - <71  |
| High      | 71 - <86  |
| Very high | ≥86 - 100 |

**SCHOOLS NEED TO CREATE PROGRAMS TO  
INCREASE THE PERSONAL RESILIENCE OF  
TEACHERS AND STUDENTS**

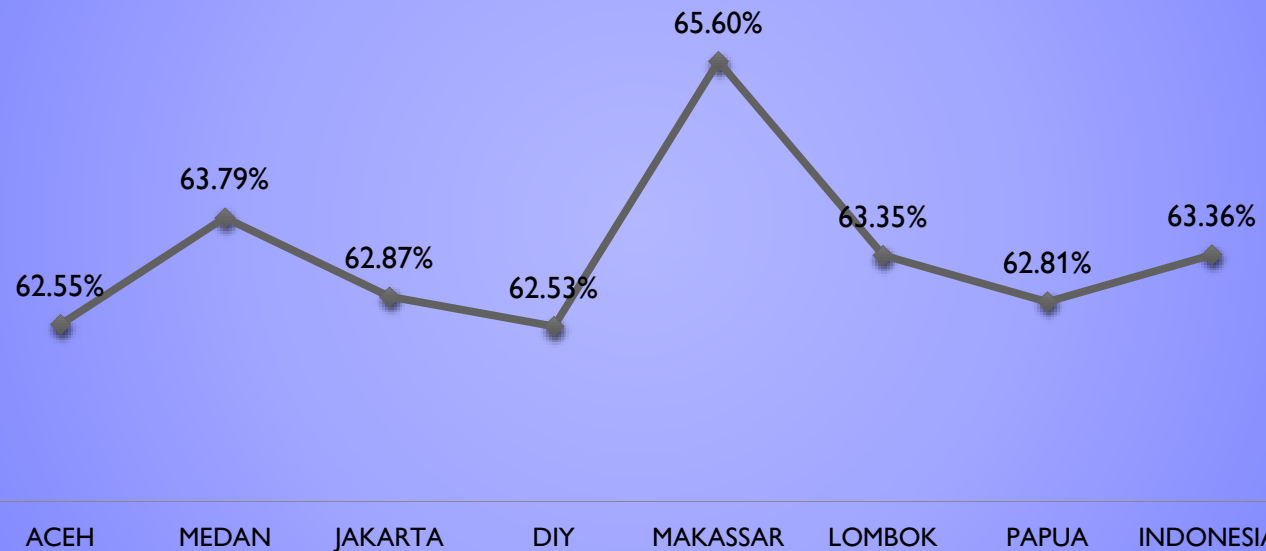
# Personal Resilience

The learning process needs to strengthen the 7 aspects needed to build personal resilience



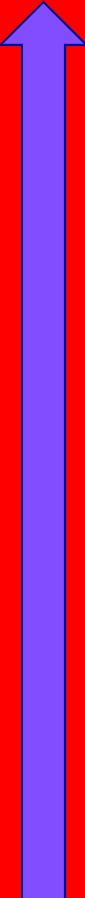
## PROFILE STUDENT'S RESILIENCE High School in Indonesia

How to increase student resilience?



| Category  | Score     |
|-----------|-----------|
| Very low  | <41       |
| Low       | 41 - <56  |
| Quite Low | 56 - <71  |
| High      | 71 - <86  |
| Very high | ≥86 - 100 |

**HOW SHOULD SCHOOLS DEVELOP  
SCHOOL RESILIENCE AND THE PERSONAL  
RESILIENCE OF TEACHERS AND STUDENTS?**

|   |  |  |
|---|--|--|
| <b>Learning indicators for education in the era of society 5.0</b>  | <b>Elements of social capital</b>  | <b>SCHOOL PROGRAMS TO INCREASE RESILIENCE</b><br><b>learning indicators for education in the era of society 5.0</b>  |
|   | Trust  | <ol style="list-style-type: none"> <li>1. Designing schools with superior IT-based programs</li> <li>2. Developing professional teachers</li> <li>3. Preparing graduates which meet to the competence of the 4.0 industrial revolution era</li> </ol>  |
|   | Participation in social networks   | <ol style="list-style-type: none"> <li>1. Strengthening community participation in school programs</li> <li>2. Strengthening family participation in school programs</li> <li>3. Designing IT access for online-based learning processes</li> <li>4. Building partnerships with industry</li> </ol>        |
|   | Mutual exchange of kindness  | <ol style="list-style-type: none"> <li>1. Strengthening social relations with schools which have the same goal.</li> <li>2. Using experts to provide constructive input</li> <li>3. Respecting differences and avoiding discrimination</li> <li>4. Having social concern for the change process</li> </ol> |
|   | Social norms and social values   | <ol style="list-style-type: none"> <li>1. Having clear rules governing society 5.0</li> <li>2. Building strong character values in the community.</li> <li>3. Creating a conducive learning environment to develop competencies in the community 5.0.</li> </ol>   |
| Disruptive action   | <ol style="list-style-type: none"> <li>1. Using the mass media as a source of information</li> </ol> |  |

# HOW TO BE ...TEACHER RESILIENCE

- Increase intellectual and emotional energy higher than before.
- Strengthen investment (professional capital), i.e. a mixture of 'human and social' capital (Hargreaves and Fullan, 2012).
- Possessing strong associations of individual qualifications (human capital) and talents, frequency, focus of conversation, interaction with peers (social capital) that is centered on instruction (Hargreaves and Fullan, 2012: 3), so as to produce students who get higher results in achievement mathematics.
- Having professional capital that is acquired and accumulated by professionals through structured and unstructured experience, practice and reflection. (Hargreaves and Fullan, 2012)
- Highly motivated, independent, committed, high capacity and highly qualified and collaborate at school.

# To Be Student Resilience ....

- Shiwaku (2011) which concluded that students will have toughness and independence and be more resilient due to these following eight main attributes, namely:
  - 1) having stable relationships with peers;
  - 2) having the skills to develop problem solving;
  - 3) designing realistic future plans;
  - 4) striving positively to achieve and handle all tasks effectively;
  - 5) experiencing success in one or more areas of life;
  - 6) being able to communicate effectively;
  - 7) having a strong attachment to at least one adult; and
  - 8) showing acceptance of responsibility for themselves and their behavior (Siwakhu, 2011).



Training to build personal resilience by creating a "river of life".



# Training to build personal resilience by creating a "river of life".



# Training to build personal resilience by creating a "river of life".



# Conclusion

- Society 5.0 requires a social transformation which processes in accordance with the stages of society from the industrial revolution 1.0 to society 5.0.
- Social capital will support the learning transformation process by building three systemic and synergistic aspects, namely foundational knowledge (to know), humanistic knowledge (to value), and meta knowledge (to act).

# Conclusion

- To be successful in learning transformation of society 5.0, it is necessary to build resilience at the community, school, family, and individual levels.
- Resilience is needed in the process of social transformation and learning. Therefore, school resilience must be developed in a systemic and synergistic way.
- Resilience is needed for teachers and students in facing challenges and changes by responding in accordance with applicable rules, and can respond to problems with a positive and patient attitude.

Thaks you for your listening  
Matur nuwun .



With resilience we  
can still work with  
quality ... and be  
productive .....ini era  
pandemic COVID-19