GIFTED EDUCATION IN AUSTRALIAN SCHOOLS: WHICH MODELS FIT BEST?

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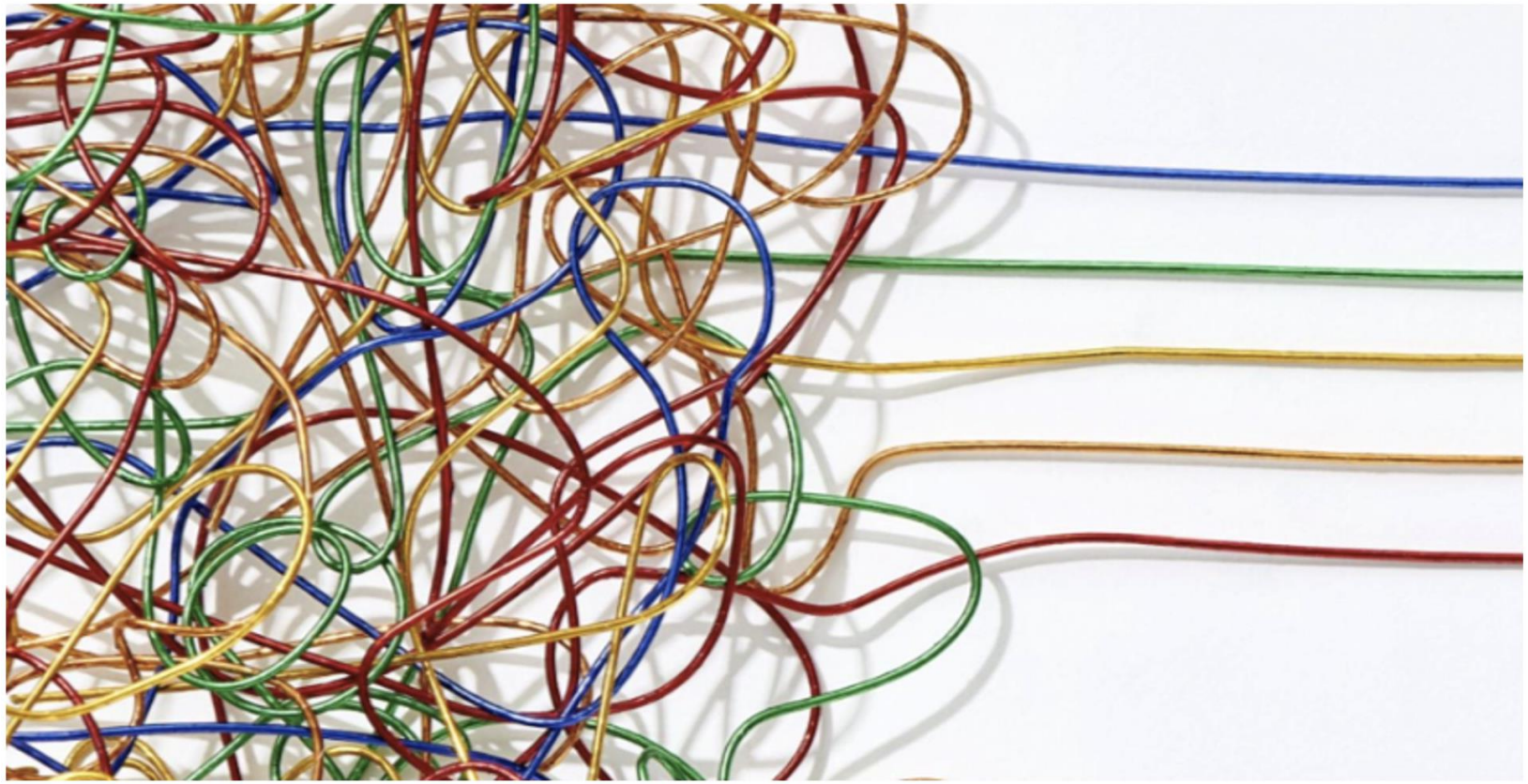
ONGOING – PHD INTEGRATED



Vartanian,(2022).

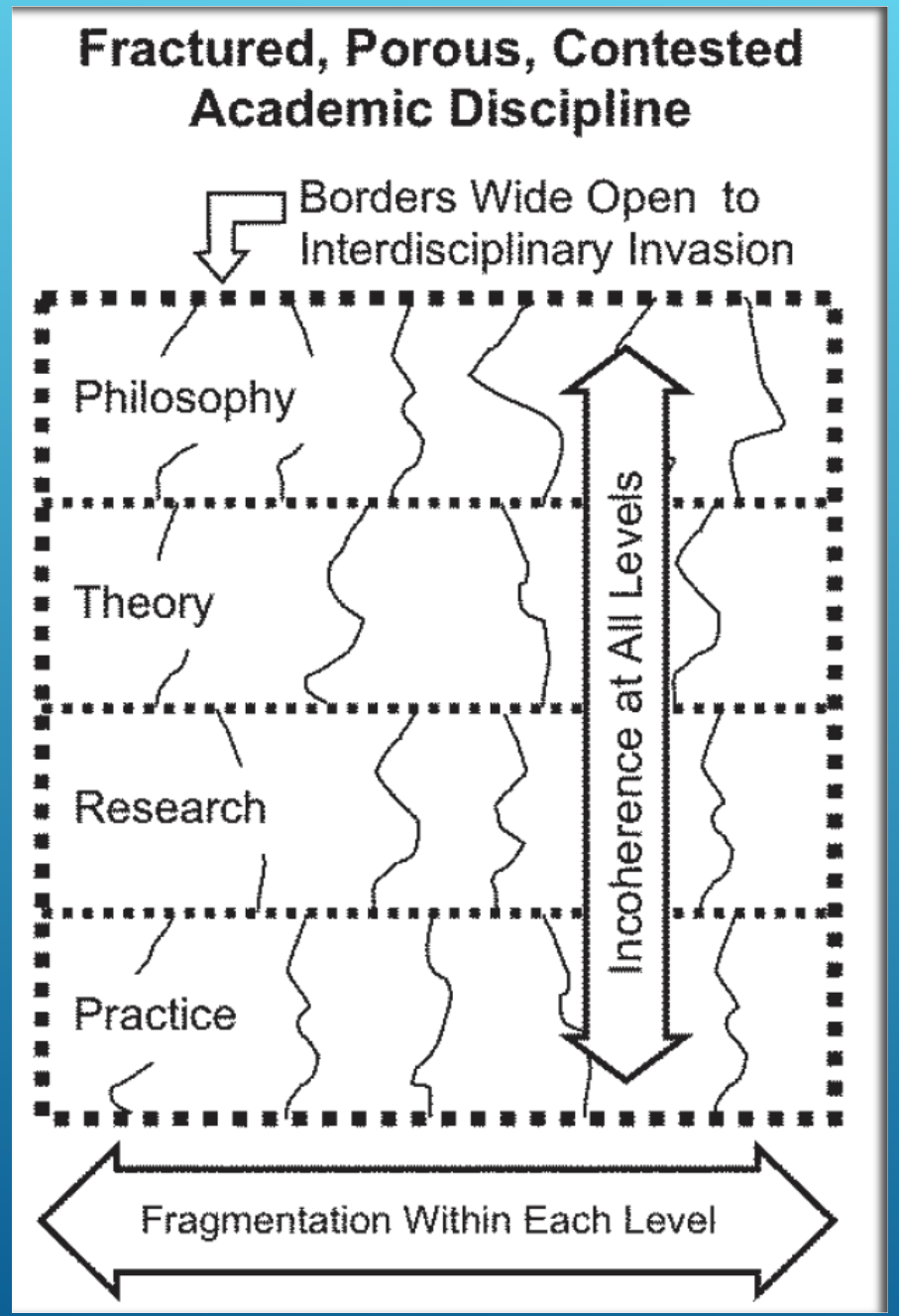
ACKNOWLEDGEMENT OF COUNTRY

I respectfully acknowledge the Traditional Owners and Custodians of this land, the Turrbal and Yuggera peoples.

We acknowledge the contribution by Aboriginal and Torres Strait Islander peoples, in particular to the education of young children, and recognise their existence long before our story began.

MODELS OF GIFTEDNESS/ GIFTED EDUCATION

SOME CONTEXT FROM 4 GROUPS OF RESEARCHERS



At all four levels of analysis (philosophical, theoretical, research, and practice) the field of gifted education appears to fit the pattern of fragmentation, porosity, and contestation... For example, the field is broken horizontally across the level of research because ***interest-based camps cohere around differing, favored conceptions of giftedness****. Across the level of theory we tend to be atheoretical but still fragmented horizontally,* ***relying on competing models that promote particular conceptions of giftedness instead of viable theories that can be tested****.*

Ambrose, Van Tassel-Baska, Coleman & Cross, 2010, p.471-472

- ***Research consistently highlights the gap between the practice in schools and the developments in gifted theory and research...***
- ***Overcoming this gap is critical for the effectiveness, defensibility, and sustainability of any program...***
- *...without support from theory and research, a* ***program for the gifted cannot achieve internal consistency****...*
- *Moreover, when there are* ***no clear examples of success****, then the sustainability of the program is at risk...*

Dimitriades, 2016, pp.221-2

PARADIGMS IN GIFTED EDUCATION (DAI & CHEN, 2013)

- Dai & Chen(2013) - three paradigm shifts:
  - *Gifted Child paradigm (G-CHI)*
    - High IQ/testing scores = gifted
    - Services for this group
  - *Talent Development paradigm (T-DEV)*
    - IQ **plus** other measures/factors
    - Authentic, many domains, long-term services
    - Several ways to be gifted
  - *Differentiation paradigm (DIFF)*
    - Individualised, situational & responsive learning - '...optimal match of educational setting...' (p.157)
    - All gifted are individual – no need for 'gifted' or 'high-potential' label
    - Identification is diagnostic – current needs
    - Options all day for students to engage at their level of expertise.

	Paradigm		
Dimension	**Gifted child**	**Talent development**	**Differentiation**
Assumption "What"	Essentialism; exclusive categorical assumption; status definition; permanent, context-free exceptionality with regard to general ability assumed	Developmentalism; talent diversity assumption; malleable status; increasingly differentiated aptitudes for a particular domain; exceptionality not assumed	Individuality assumption; emergent needs for differentiation; context-dependency of exceptionality
Purpose "Why"	Serving the gifted; thinking and leadership qualities as the goal	Supporting domain excellence and innovation; modeling after authentic professions and creativity	Diagnostic focus; responding/ serving manifested individual needs within the confines of schooling (e.g., main school subjects)
Targeted students "Who"	Classification based on psychometric measures of superior mental qualities	Selection/placement based on aptitudes for a particular domain	Diagnosis of strengths and needs for educational purposes in a particular educational context
Strategy "How"	Programs assumed to be uniquely suited for the gifted; pull-out and self-contained programs as service models	Various enrichments, authentic learning, and mentorship across school, home, college, and community as service models	Appropriate pacing of learning progression, school-based curricular and instructional adaptations and other interventions as service models

Dai & Chen, 2013, p.159

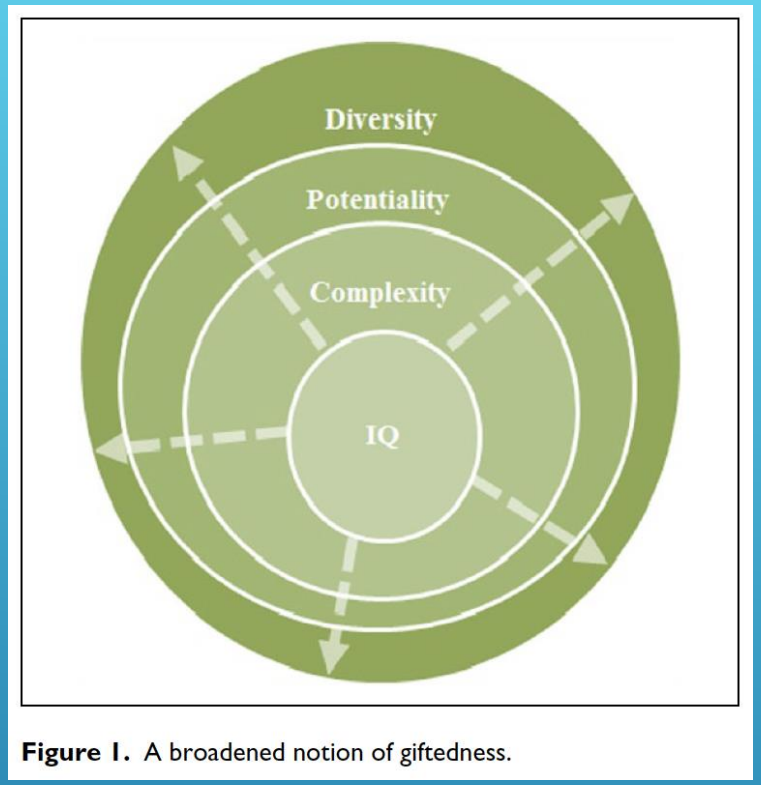


Figure 1. A broadened notion of giftedness.

Lo & Porath, 2017, p.350 & 353

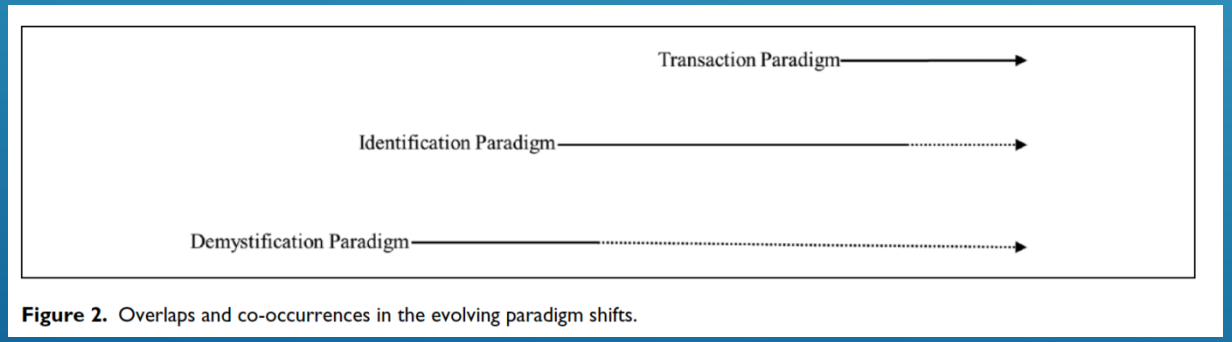


Figure 2. Overlaps and co-occurrences in the evolving paradigm shifts.

Lo & Porath (2017) three 'different' paradigm shifts:

- *Demystification phase (D-MIST)*
  - '...giftedness as manifest wonders' (p.343)
  - '...unpack individual differences through systematic investigation and measurement.' (p.345) – positivist (measurable results)
- *Identification phase (ID)*
  - 'Before we can educate the genius, we must discover him in childhood (Hollingworth, 1938, p.306 in Lo & Porath,2017, p.349)
  - Golden age of the IQ test + programs
  - Domains introduced
  - Remain identification based
- *Transactional phase (TRANSACT)*
  - '...providing an education that allows all students to have rich and varied educational experiences matched to their interests and abilities' (p. 350)
  - No more gifted vs non-gifted
    - 'Being' gifted → 'Becoming' gifted
  - Systems approach (Whole > Sum of parts)

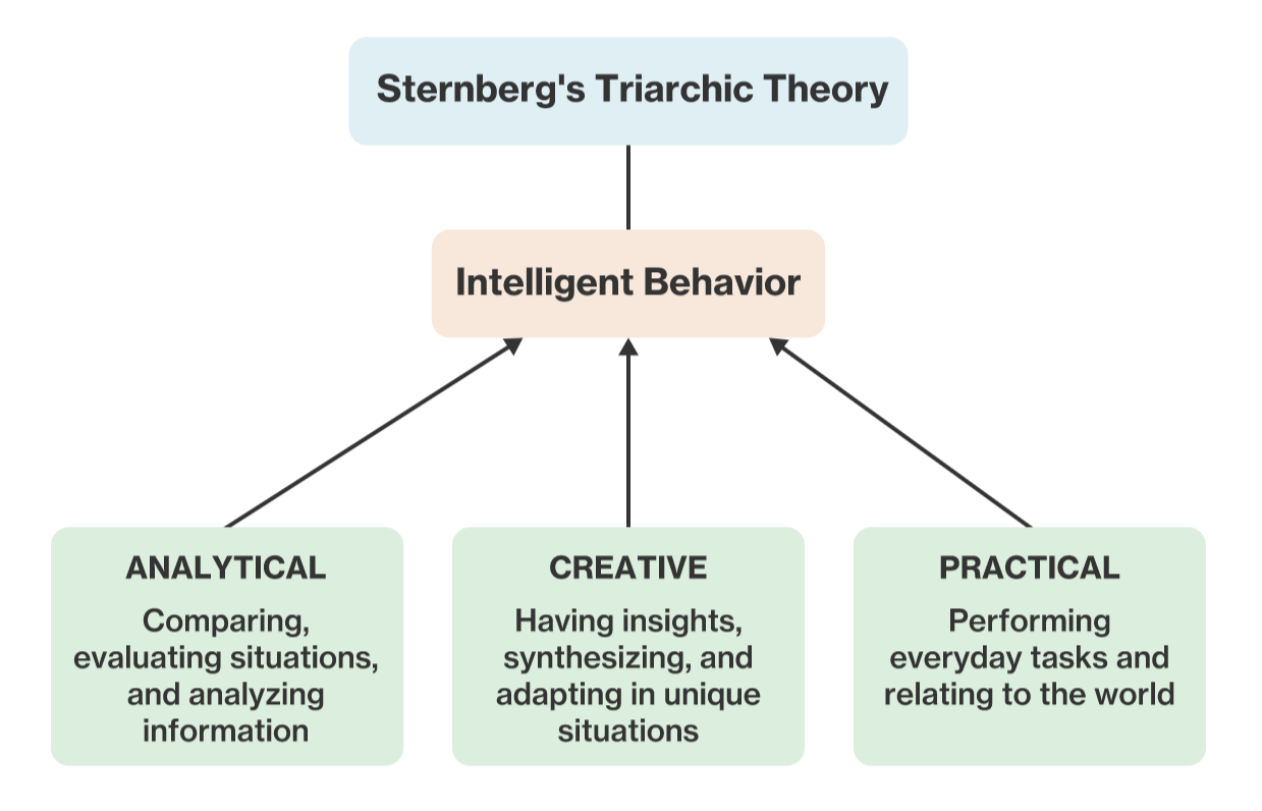
PARADIGMS IN GIFTED EDUCATION (LO & PORATH, 2017)

MODELS OF GIFTEDNESS/ GIFTED EDUCATION

WHICH PARADIGMS?

STERNBERG'S TRIARCHIC THEORY OF HUMAN INTELLIGENCE

(STERNBERG, 1984 & 2000)



(Image - Course Hero, 2020)

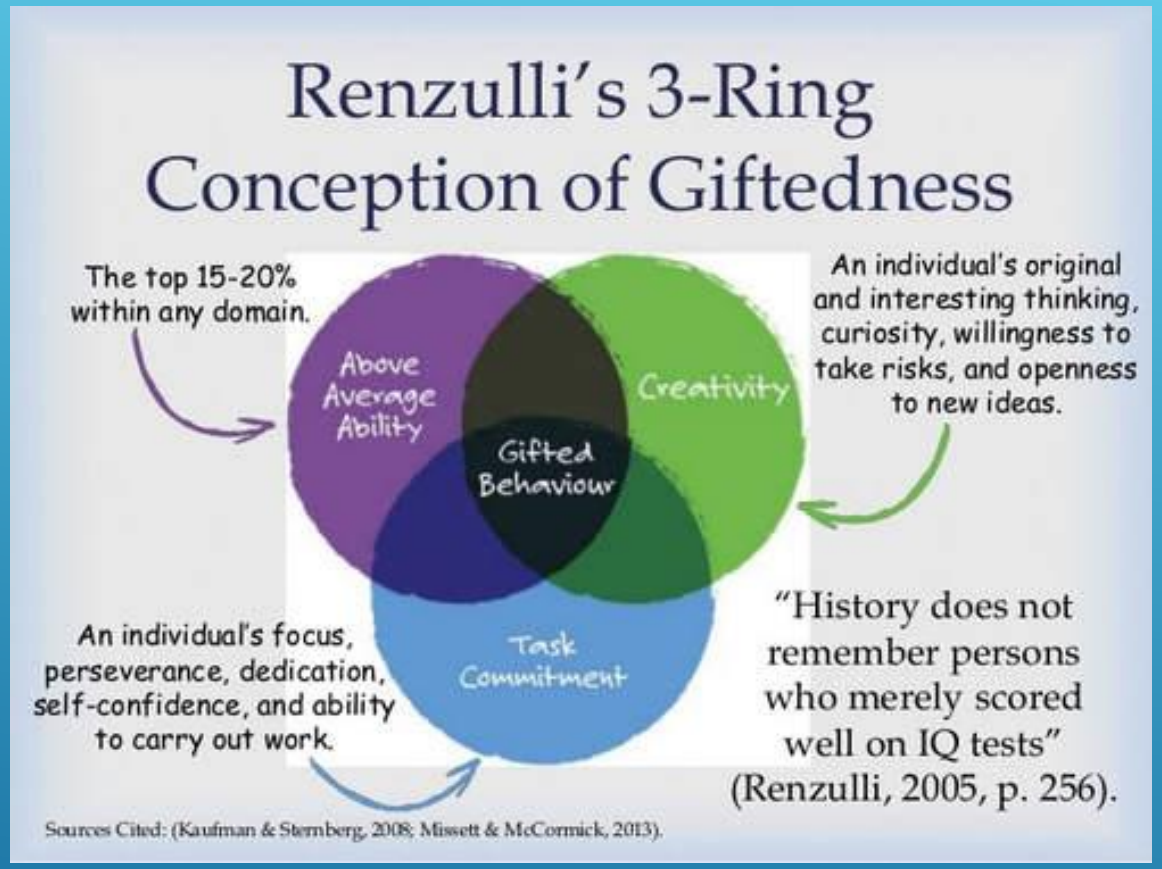
Gifted individuals →3 characteristics:

- *Creative: Generate major ideas that are novel and of high quality*
- *Analytical: Evaluate ideas*
- *Practical: Convince people of the value of ideas and to render ideas practical.*

'…we may wish to help youngsters compensate for weaknesses as well as capitalize on strengths.'

(Sternberg, 2000. p, 235)

- Which paradigm(s)? - It depends
  - ALL???
  - Depends on ID and structure???



(Taylor, n.d.)

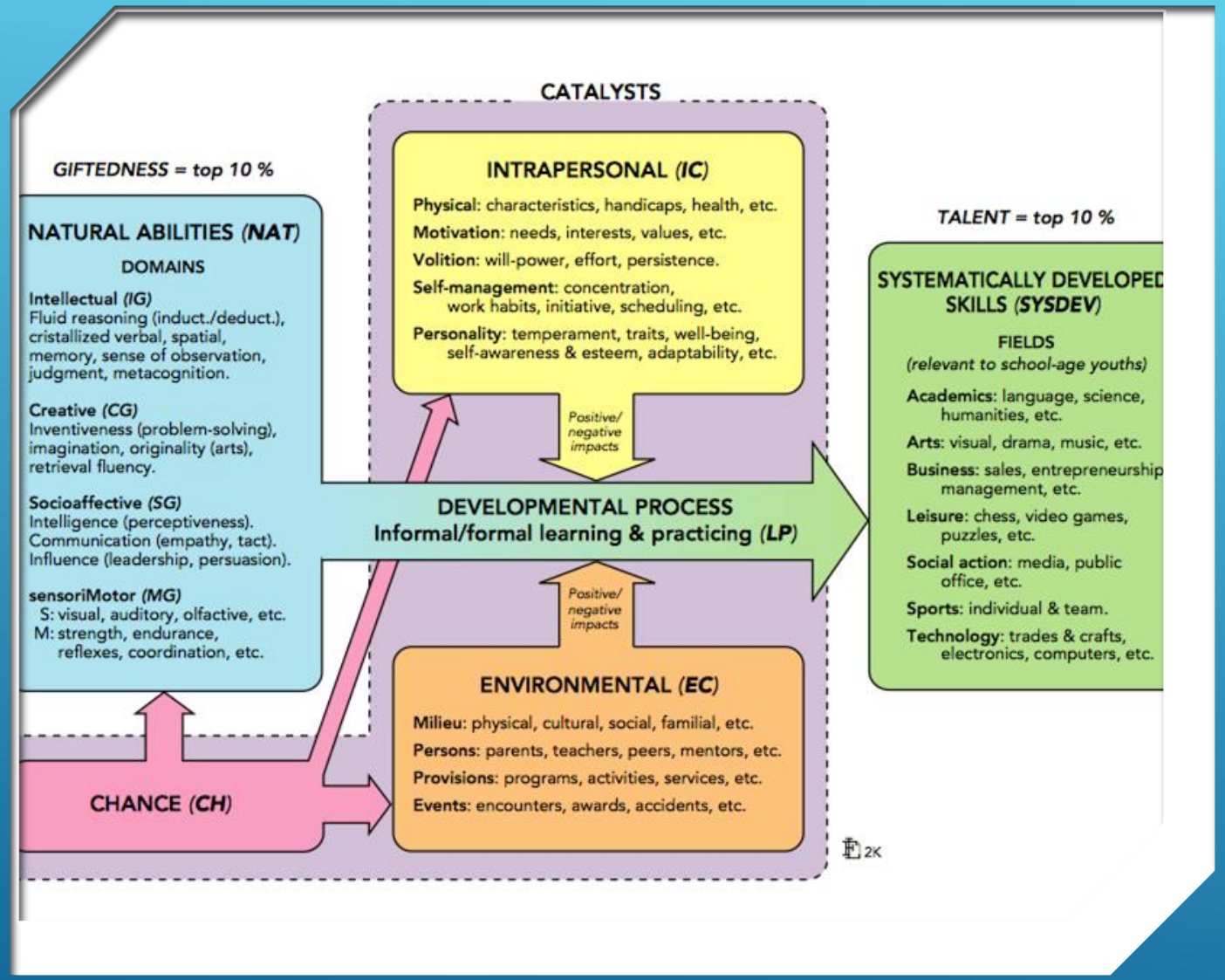
- 'Sweet spot' combining:
  - Above average ability
  - Task commitment
  - Creativity
- Which paradigm(s)?
  - T-DEV & ID, but aspects of DIFF & TRANSACT (Barab & Plucker, 2002)

RENZULLI THREE RING CONCEPTION OF GIFTEDNESS

(RENZULLI, 1988 & 1990, RENZULLI & PURCELL, 1995)

GAGNÉ'S DIFFERENTIATED MODEL OF GIFTEDNESS AND TALENT

(1985, 2000, 2004, 2007, 2010 & 2013)



- Gifted – Natural abilities
  - Top 10% domain age peers
  - 6 categories
- Talent – Performance
  - Top 10% learning peers
  - 8 categories
- Talent Development
- Chance
  - Catalysts
    - Environmental
    - Intrapersonal
  - Developmental Processes
- Which paradigm(s)?
  - TD& ID, but aSpects of DIFF & TRANSACT

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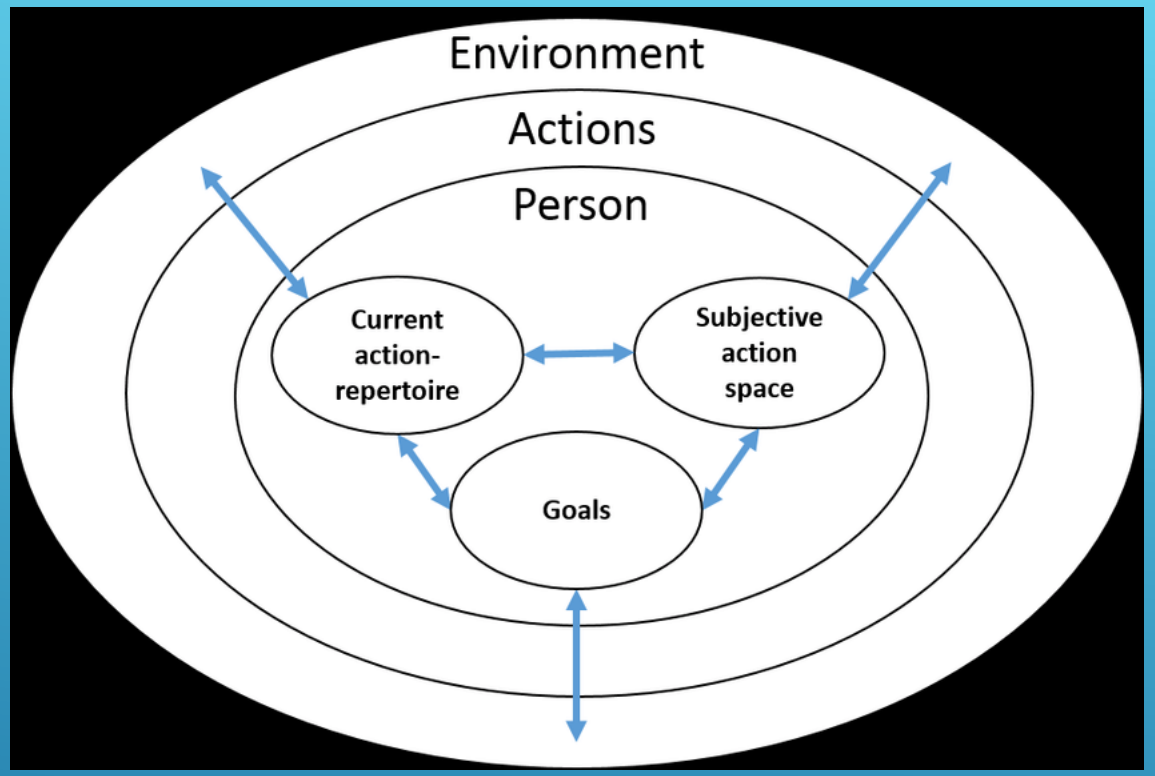
- 8 different types of intelligence
- Strengths and weaknesses
- Which paradigm(s)?
  - T-DEV &ID
- Model of Gifted? – NO
  - Utilised for Gifted - YES

GARDNER'S THEORY OF MULTIPLE INTELLIGENCES

(GARDNER & HATCH, 1989)



Brandt, L., Schober, B., Schultes, M.-T., Somoza, V., & Spiel, C. (2018)

ACTIOTOPE MODEL OF GIFTEDNESS

(ZIEGLER, 2005; ZEIGLER, VIALLE & WIMMER, 2013; ZIEGLER, CHANDLER, VIALLE AND STOEGER, 2017; ZIEGLER & STOEGER, 2017)

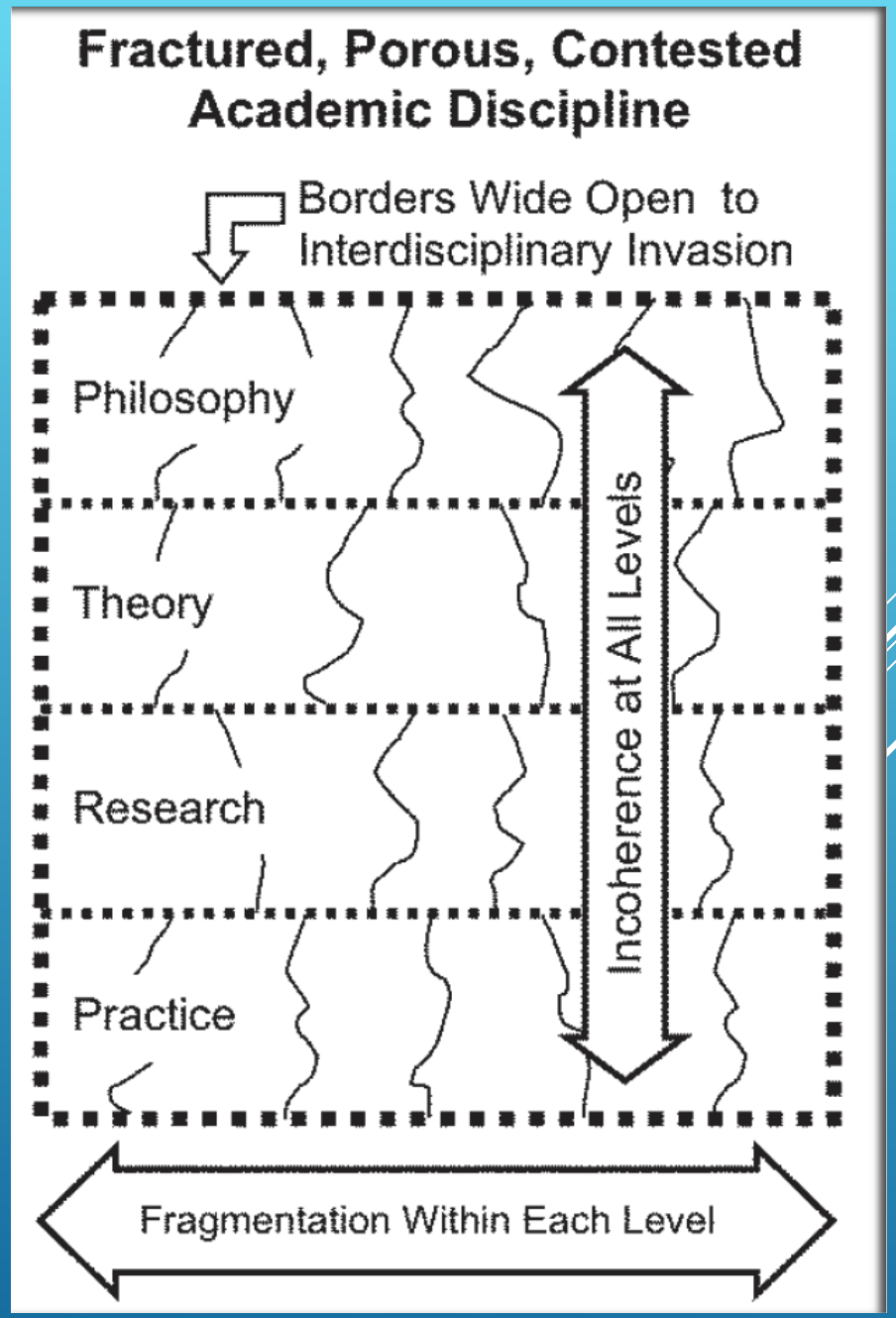
- Actiotope
  - *Includes an individual and the material, social and informational environment in which that individual actively interacts.*
- Develop an *action repertoire*
  - *...sustainable possibilities for action an individual is capable of executing*
- Goals
- Environment (people and resources)
- Subjective action space
  - What do people believe they can do?
- Other influences include past experience from a variety of successfully complete tasks, and associated feedback
- Which paradigm(s)?
  - DIFF & TRANSACT?

CERTAINLY **NOT** AN EXHAUSTIVE LIST OF MODELS…

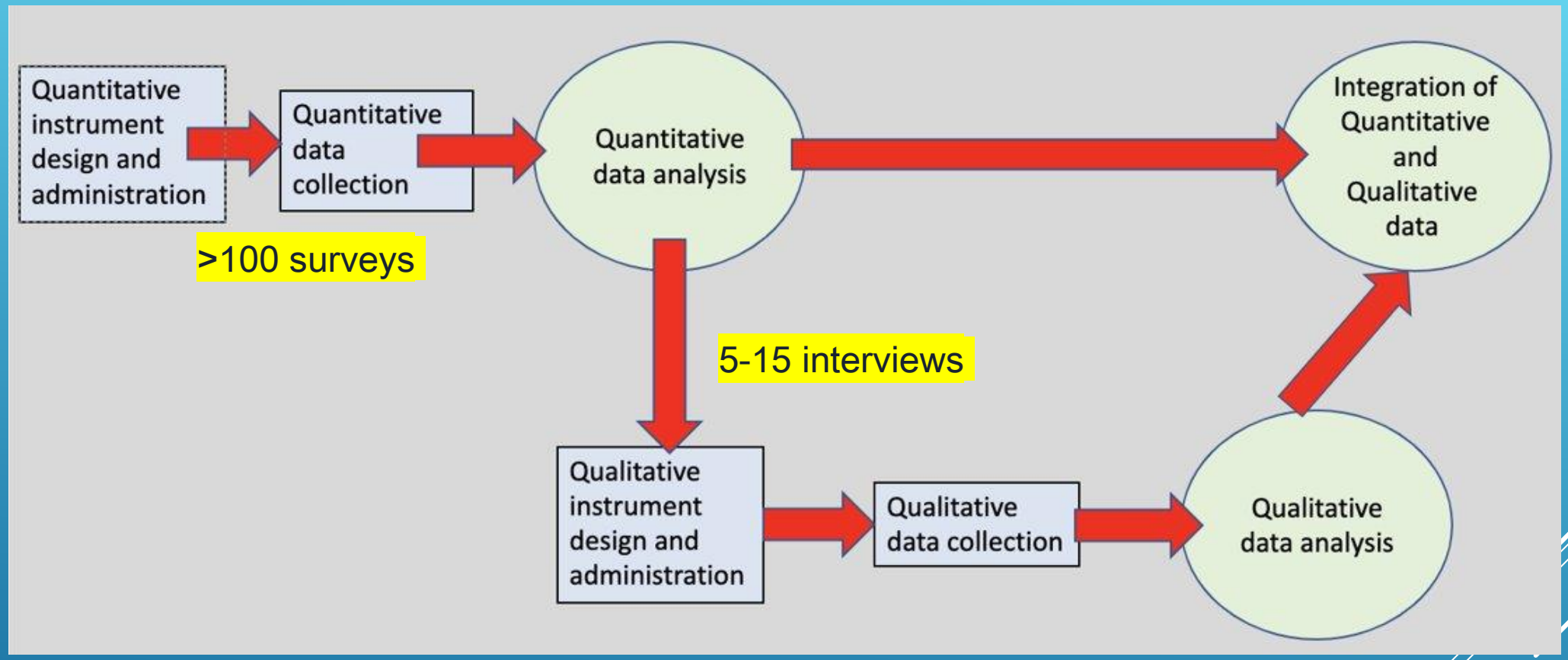
Many, many models. All with worthwhile contributions.

- If no consensus, how do practitioners know which model might suit their circumstances?
- What percentage use a particular model?
- Why do they use this model?
- Does context match model?
- What influences their decision?
- Early or modern paradigms?
- What about Australia?

UNANSWERED QUESTIONS???



RESEARCH DESIGN (MIXED METHODS)



- Explanatory sequential design (Cresswell, 2015)

TO HAVE YOUR SAY…

QUESTION???

WHAT HAVE WE FOUND SO FAR?

STATE	% OF RESPONSES
NSW	55
VIC	24
QLD	7
WA	7
SA & ACT	4
TAS	7

NOT REPRESENTATIVE

SCHOOL TYPE	%
PRIMARY	21
SECONDARY	29
BOTH P&S	50

OVERREPRESENTED???

MODEL	FAMILIARITY (0-5)
STERNBERG	2.56
RENZULLI	3.59
GAGNÉ	4.59
GARDNER	4.76
ACTIOTOPE	2.09
COLUMBUS	2.54

MODEL	CENTRAL MODEL PERCENTAGE (%)	SUBSEQUENT MODEL PERCENTAGE (%)	TOTAL
STERNBERG	0	7	7
RENZULLI	7	26	33
GAGNÉ	71	19	90
GARDNER	5	24	29
ACTIOTOPE	0	7	7
COLUMBUS	2	12	14
WILLIAMS	2	0	2
BLOOM	2	5	7
COMBINATION	***5***	***52***	***57***
NONE	***5***	***0***	***5***

WHAT HAVE WE FOUND SO FAR?

Why do you utilise this model?	% responses
Mandated by my school/system	33
Colleagues are familiar with this model, so it provides a common language for our work	26
Unfamiliar with other models	14
It provides an excellent framework for understanding high-ability students and their development	64
Clear processes for identifying and meeting the needs of students	33

Note: respondents could provide more than one reason

TO HAVE YOUR SAY…

QUESTIONS

THANK YOU FOR YOUR TIME

REFERENCES - MODELS

- Ambrose, D., VanTassel-Baska, J., Coleman, L. J., & Cross, T. L. (2010). Unified, Insular, Firmly Policed, or Fractured, Porous, Contested, Gifted Education? *Journal for the Education of the Gifted, 33*(4), 453-478,628,631. Retrieved from https://ezproxy.uow.edu.au/login?url=https://www.proquest.com/scholarly-journals/unified-insular-firmly-policed-fractured-porous/docview/665263469/se-2?accountid=15112
- Course Hero (2020). *Intelligence* [webpage]. Retrieved from https://www.coursehero.com/sg/introduction-to-psychology/defining-and-categorizing-intelligence/
- Dai, D. Y., & Chen, F. (2013). Three paradigms of gifted education: In search of conceptual clarity in research and practice. *Gifted Child Quarterly*, *57*(3), 151-168.
- Dimitriadis, C. (2016). Gifted Programs Cannot Be Successful Without Gifted Research and Theory: Evidence From Practice With Gifted Students of Mathematics. *Journal for the Education of the Gifted, 39*(3), 221-236. doi:https://doi.org/10.1177/0162353216657185
- Gardner, H., & Hatch, T. (1989). Educational implications of the theory of multiple intelligences. *Educational researcher*, *18*(8), 4-10.
- Lo, C. O., & Porath, M. (2017). Paradigm shifts in gifted education: An examination vis-a-vis its historical situatedness and pedagogical sensibilities. *Gifted Child Quarterly*, *61*(4), 343-360.
- Renzulli, J. S. (1988). A decade of dialogue on the three-ring conception of giftedness. *Roeper Review*, *11*(1), 18-25.
- Renzulli, J. S. (1990). A practical system for identifying gifted and talented students. *Early Child Development and Care*, *63*(1), 9-18.
- Renzulli, J. S., & Purcell, J. H. (1995). A schoolwide enrichment model. *The Education Digest*, *61*(4), 14.
- Sternberg, R. J. (1984). Toward a triarchic theory of human intelligence. *Behavioral and Brain Sciences*, *7*(2), 269-287.
- Sternberg, R. J. (2000). Patterns of giftedness: A triarchic analysis. *Roeper Review*, 22(4), 231-235.
- Taylor (n.d.) Mrs. Taylor's Enrichment Page . Accessed 27/2/2023 at https://mrstaylordts.weebly.com/renzulli-schoolwide-enrichment-model.html
- Vartanian, A. (2022). Pinpoint 3D printing. *Nature Reviews Materials, 7*(5), 336-336. doi:10.1038/s41578-022-00445-w

REFERENCES - GAGNÉ

- Gagné, F. (1985). Giftedness and talent: Reexamining a reexamination of the definitions. *Gifted child quarterly*, *29*(3), 103-112.
- Gagné, F. (2000). Understanding the complex choreography of talent development through DMGT-based analysis. *International handbook of giftedness and talent*, *2*, 67-79.
- Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High ability studies*, *15*(2), 119-147.
- Gagné, F. (2007). Ten commandments for academic talent development. *Gifted child quarterly*, *51*(2), 93-118.
- Gagné, F. (2010). Motivation within the DMGT 2.0 framework. *High ability studies*, *21*(2), 81-99.
- Gagné, F. (2013). The DMGT: Changes within, beneath, and beyond. *Journal of Talent Development and Excellence*, *5*(1).

REFERENCES - ZIEGLER

- Brandt, L., Schober, B., Schultes, M.-T., Somoza, V., & Spiel, C. (2018). Supporting Third Mission activities at Universities: Deans' opinions and recommendations. *Zeitschrift für Hochschulentwicklung, 13*. doi:10.3217/zfhe-13-02/02
- Ziegler, A. (2005). The actiotope model of giftedness. *Conceptions of giftedness*, 2, 411-436.
- Ziegler, A., Chandler, K. L., Vialle, W., & Stoeger, H. (2017). Exogenous and endogenous learning resources in the Actiotope Model of Giftedness and its significance for gifted education. *Journal for the Education of the Gifted*, *40*(4), 310-333.
- Ziegler, A., & Stoeger, H. (2017). Systemic gifted education: A theoretical introduction. *Gifted Child Quarterly*, *61*(3), 183-193.
- Ziegler, A., Vialle, W., & Wimmer, B. (2013). The actiotope model of giftedness: A short introduction to some central theoretical assumptions.

REFERENCES - METHODOLOGY

- Creswell, J.W. (2015). *Qualitative inquiry and research design: choosing among five approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Garrison, J. (1994). Realism, Deweyan pragmatism, and educational research. *Educational Researcher*, *23*(1), 5-14.
- Garrison, J., & Neiman, A. (2003). Pragmatism and education. *The Blackwell guide to the philosophy of education*, 21-37.
- Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative inquiry*, *20*(8), 1045-1053.