



**MÄLARDALENS HÖGSKOLA
ESKILSTUNA VÄSTERÅS**

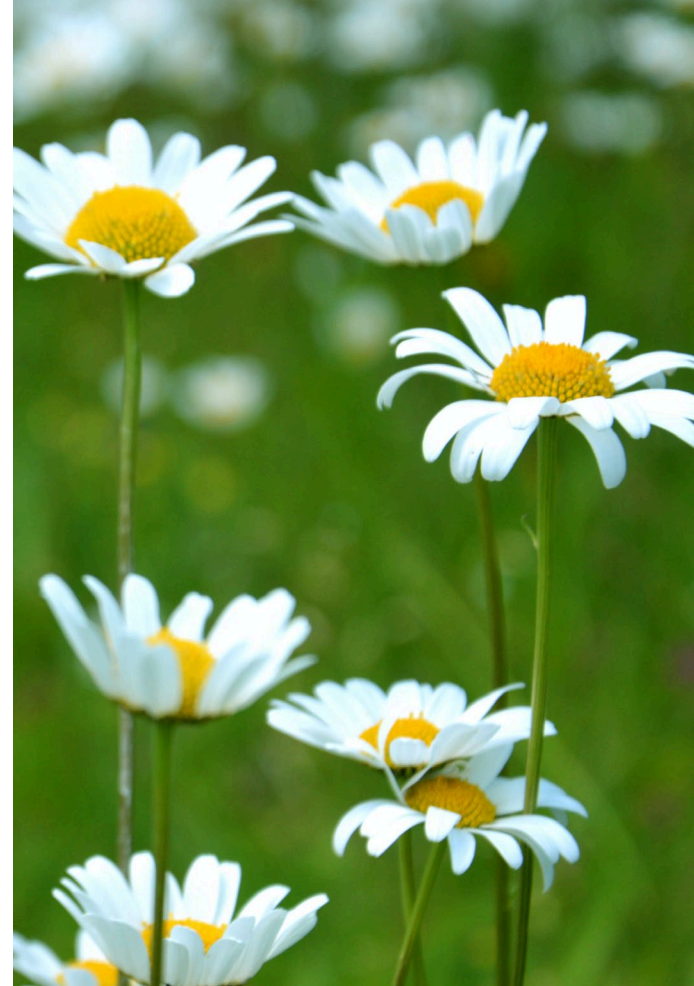


**Stockholms
universitet**

Gifted students' needs in technology education

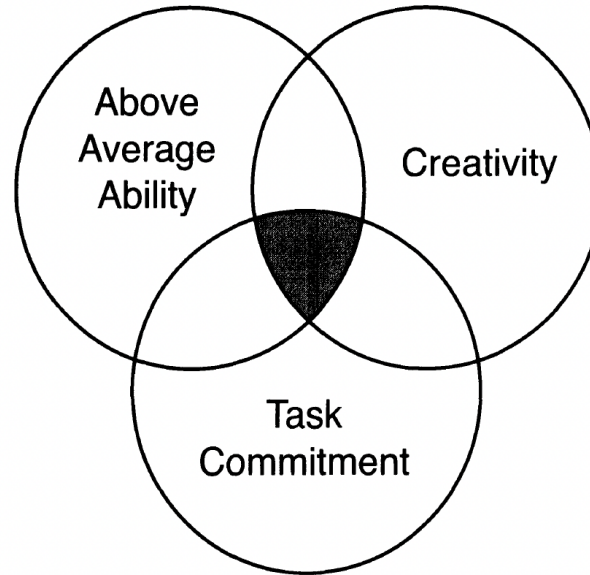
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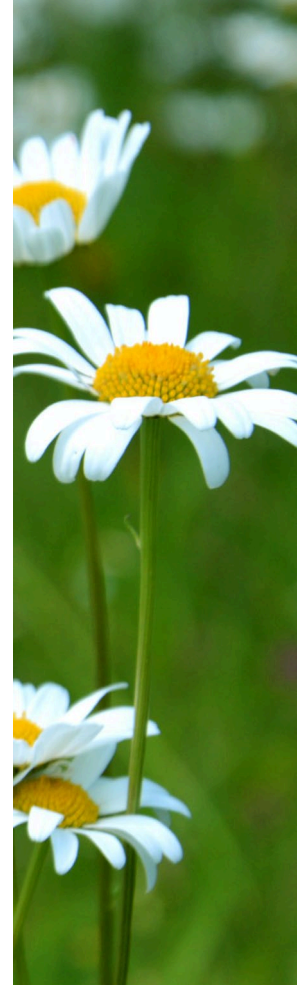


Gifted students

- Definition
- Identification
- Mixed-ability classrooms
- Underachieving students
- 2e - twice exceptional



(Renzulli & Renzulli, 2010)

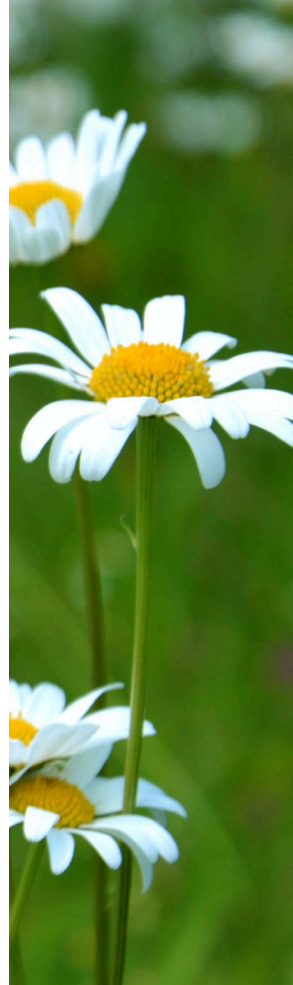


Aim and research question

The aim of this systematic research literature review is to identify and synthesize knowledge about technology education for gifted students.

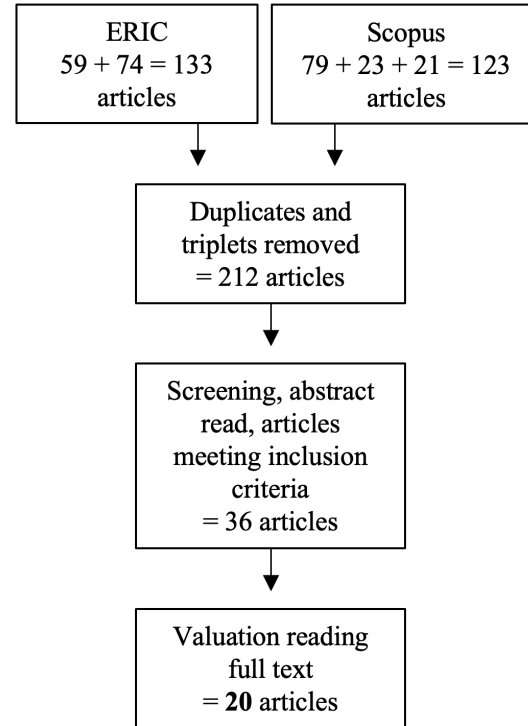
The research question is:

What needs of gifted students in relation to technology education are pointed out in research literature?

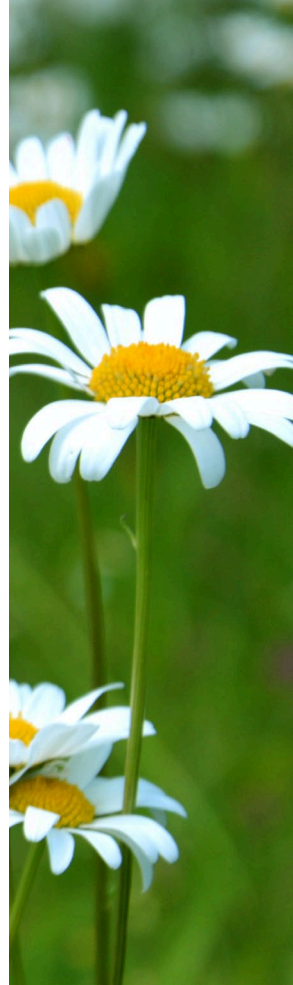


Method

- Systematic research literature review
- Databases ERIC and SCOPUS
- 2010 and beyond
- Academic journals
- Written in English
- Technology, STEM, engineering
- Thematic analysis



(Braun & Clark, 2006; Hart, 2018)



Results

- Complexity
- Autonomy
- Support
- Authenticity

Complexity

Focus on understandings
Explore concepts
Experiments
Depth
Higher order thinking

Autonomy

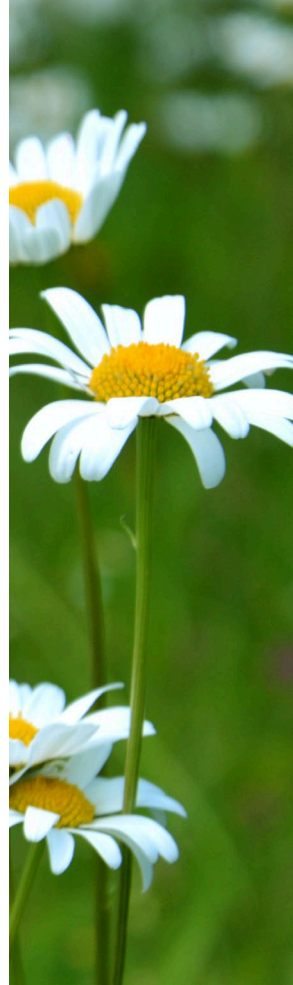
Self-regulated learning
In control
Choosing activities
Pace of learning
Express themselves

Support

Response and feedback
Discussions
Guidance
Acknowledgement

Authenticity

Meaningful and relevant activities
Real-life problems
Interdisciplinary approach
Open-ended activities



Discussion

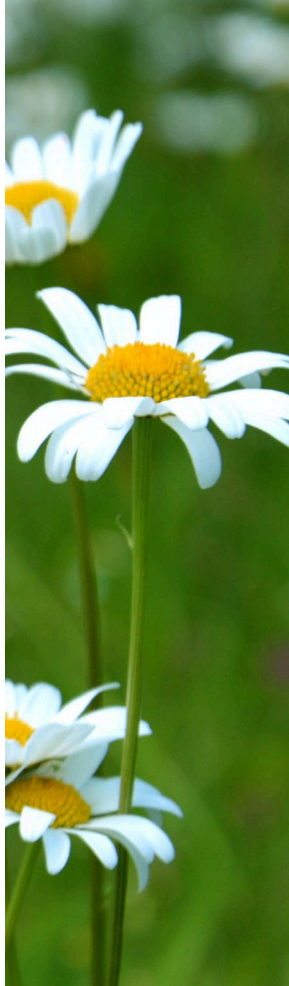
Gifted students are a heterogenous group.

Themes can guide teachers, and ensure that gifted students' needs are taken into consideration.

Underachieving students can be stimulated.

The themes can be used when comparing different technology educational traditions.

The themes can facilitate a common understanding of gifted students' needs.

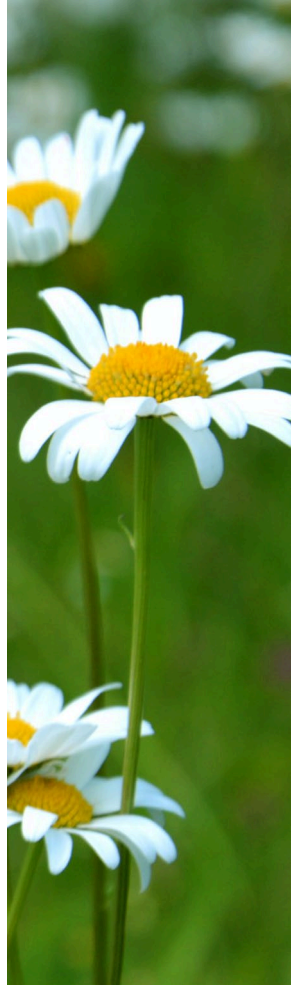


References

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>

Hart, C. (2018). *Doing a literature review : releasing the research imagination* (2nd edition.). SAGE Publications.

Renzulli, J. S., & Renzulli, S. R. (2010). The Schoolwide Enrichment Model: A focus on the student strengths and interests. *Gifted Education International*, 26, 140-156.
<https://journals.sagepub.com/doi/10.1177/026142941002600303>



Thank you

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