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Teaching Sensitive and Controversial Issues: Domain-Specific and Domain-General Determinants of Classroom Tension and Pedagogic Frailty

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Teaching Sensitive and Controversial Issues (SCIs)

Teaching SCIs

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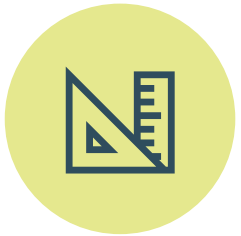

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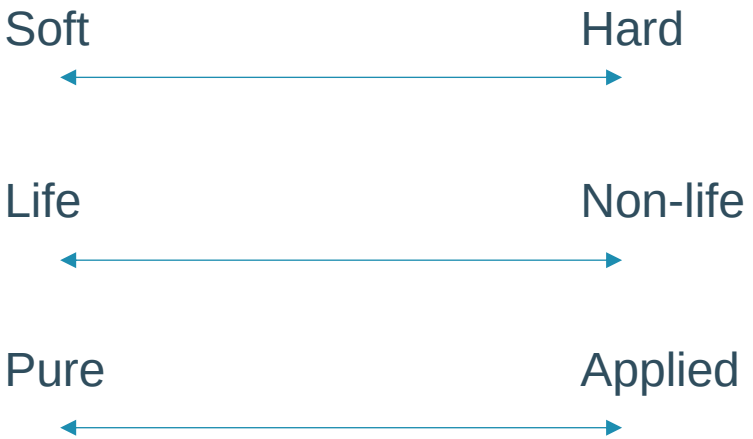
Biglan Classification Model

Subject level

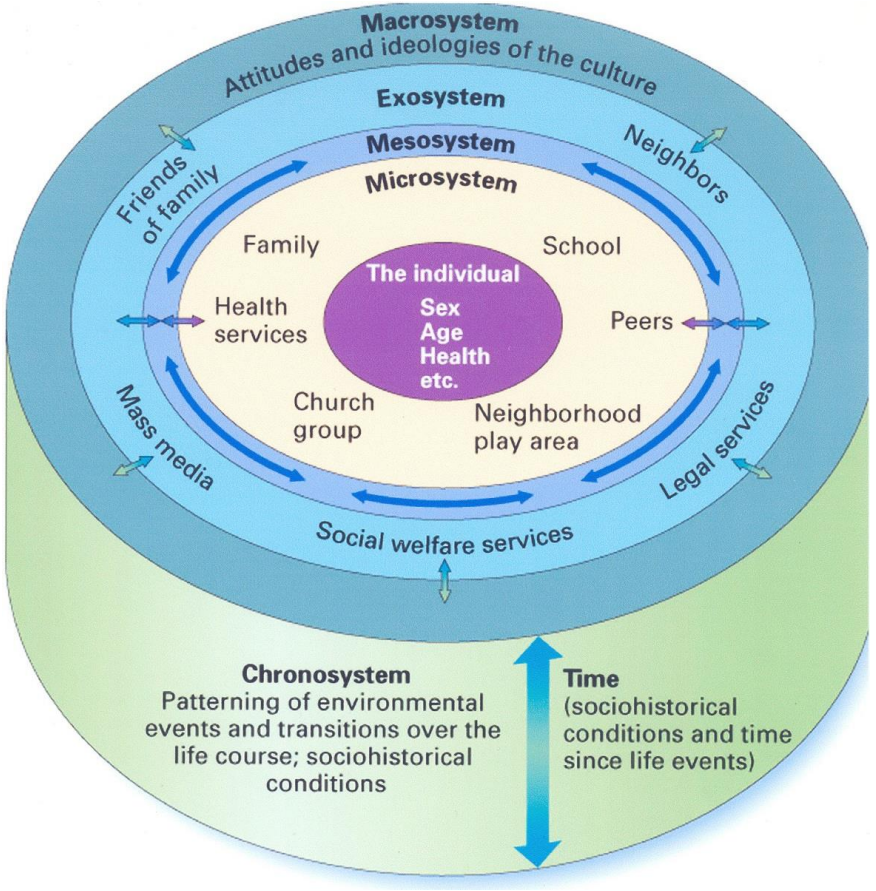
TABLE 2. Classification of Disciplines

	Hard		Soft	
	Life	Nonlife	Life	Nonlife
Pure	Anatomy Zoology Biology Physiology Biochemistry Virology	Mathematics Statistics Geology Chemistry Physics	Psychology Anthropology Political Science Sociology Theology	English Languages Literature History Philosophy
Applied	Agriculture Forestry	Engineering Chem Eng. Civil Eng. Elec. Eng. Mech. Eng.	Ed. Admin. Ed. Psych. Ed. Found.	Economics

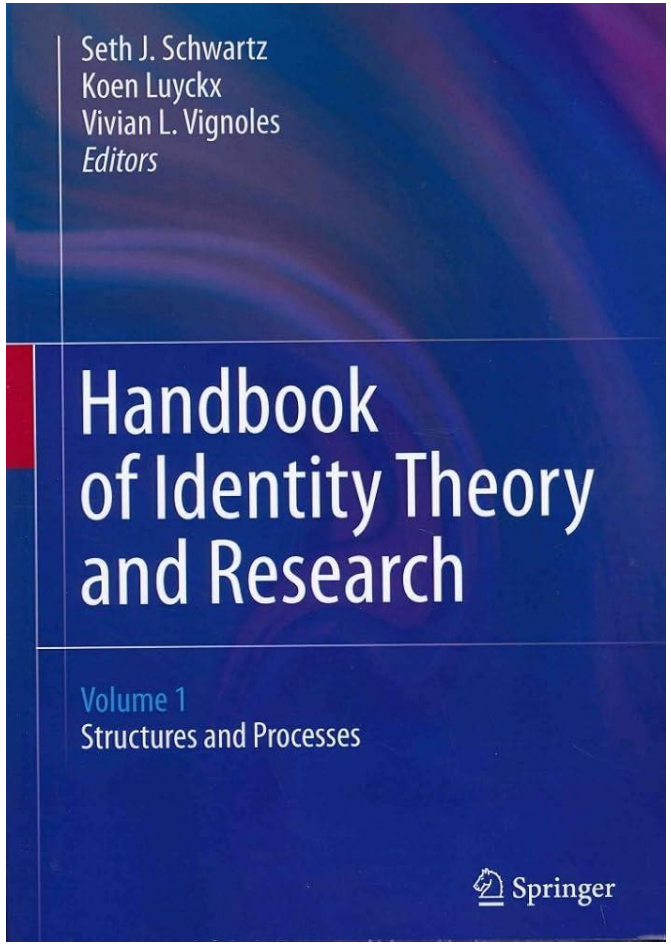
Topic level



Ecological System Theory



Identity theory



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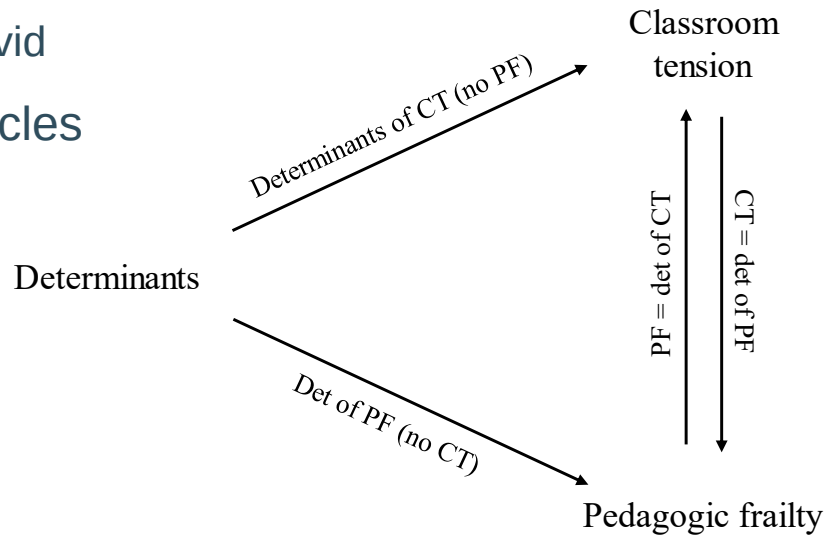
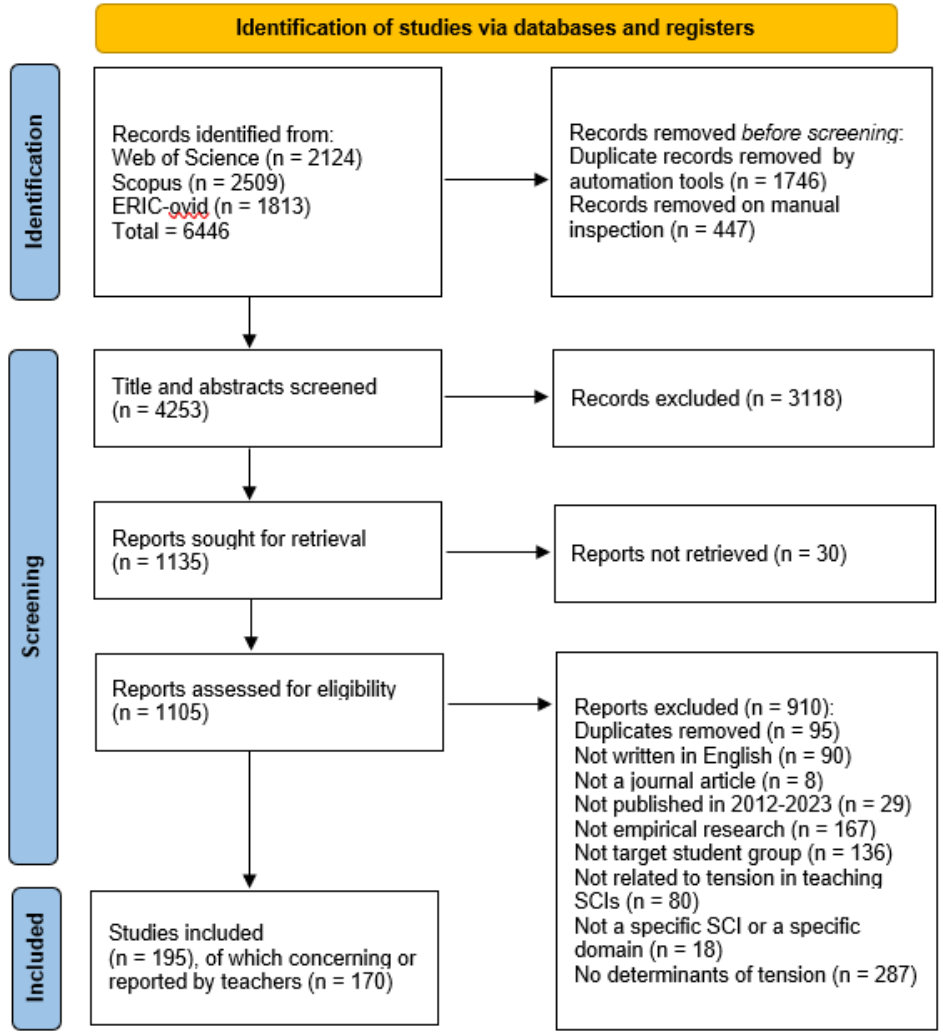
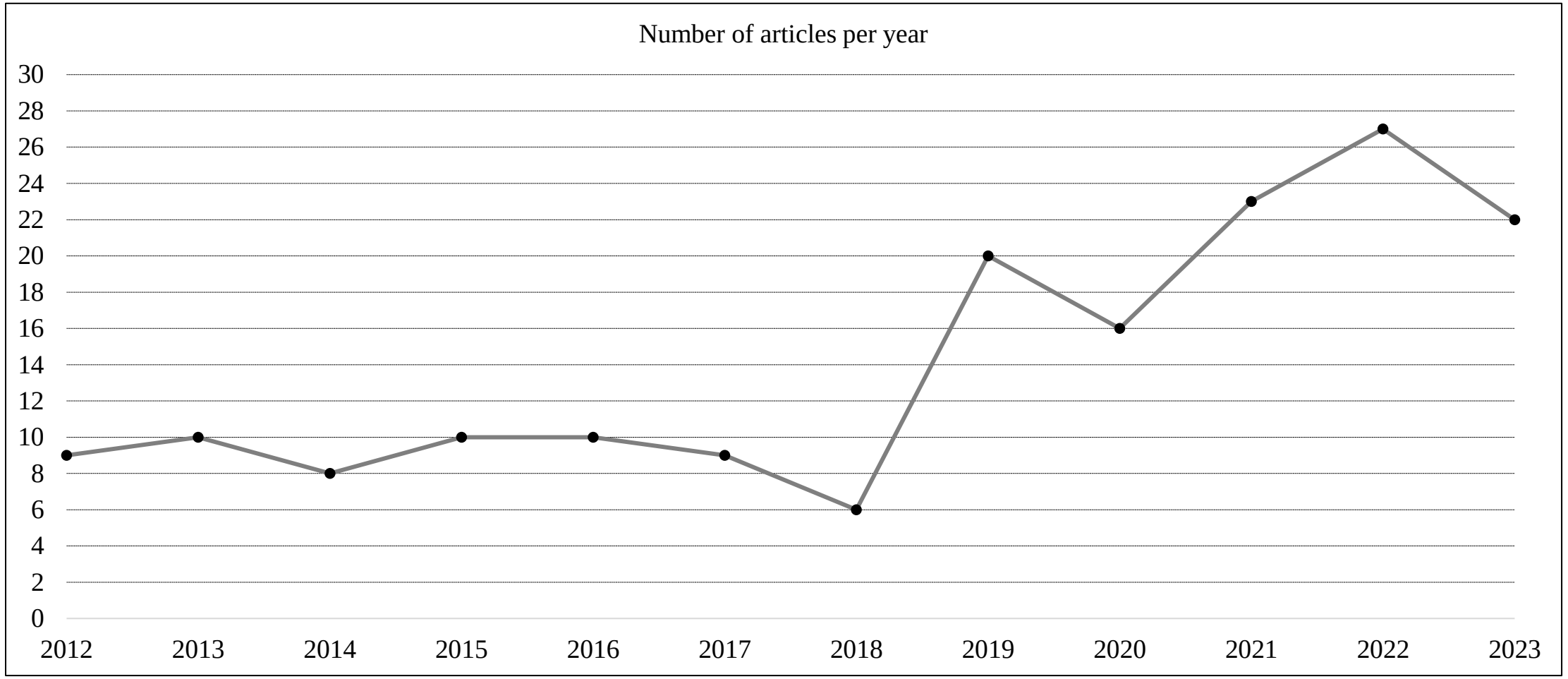
- Systematic literature review
- PRISMA guidelines
- Three databases
  - Web of Science
  - Scopus
  - ERIC-ovid
- n = 170 articles

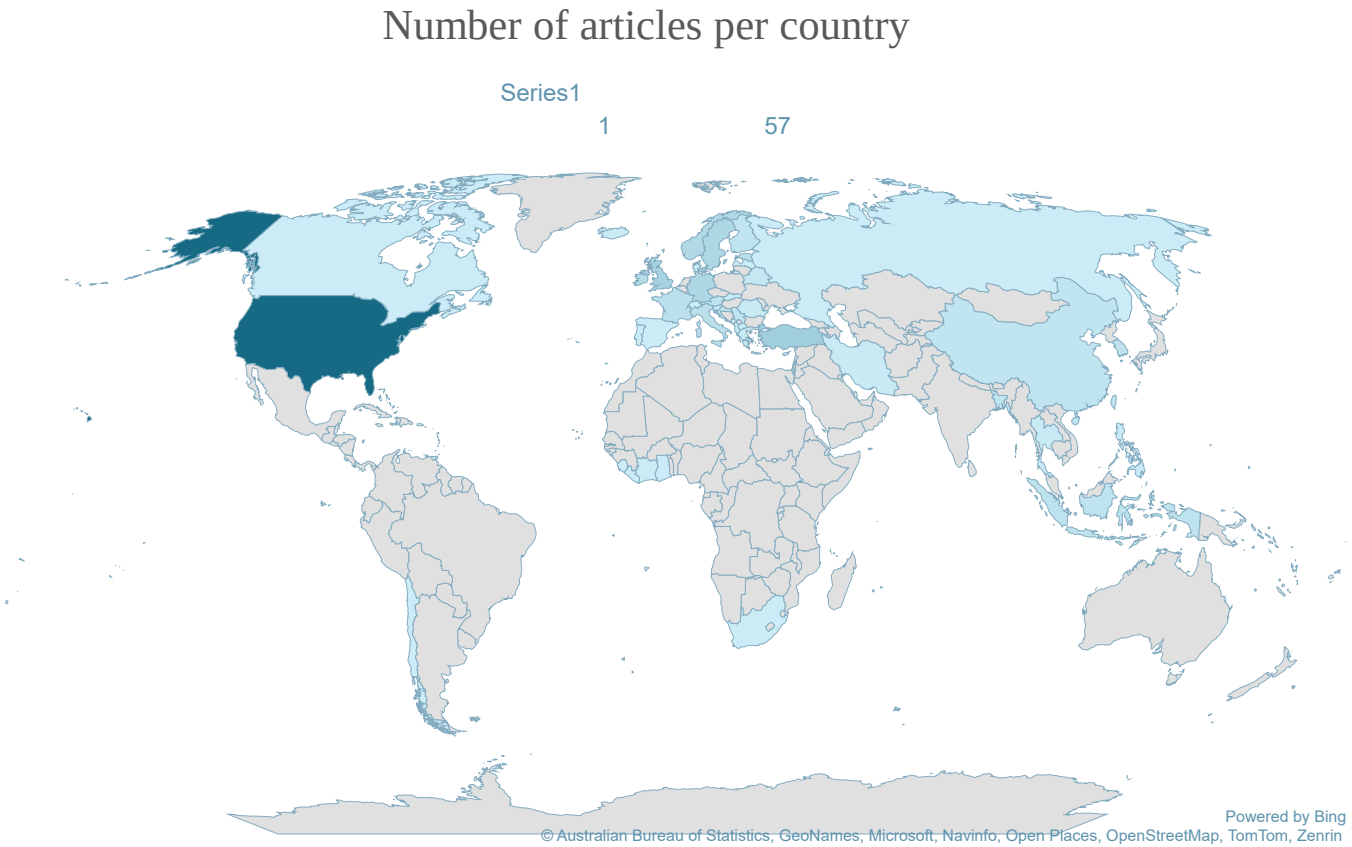




Increased interest



Around the world



Continent	Number of articles
Africa	8
Asia	61
Europe	59
North America	58
Oceania	9
South America	1

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Context as determinant - NS

System (%)	Determinant	Elaboration
Individual (69%)	**Class composition**	Teachers' personal beliefs on class composition, e.g. teacher feeling overwhelmed by large classroom size (e.g. Ado, 2015)..
	Implementation of issues	When teachers cannot find appropriate SCIs (e.g. Tannebaum, 2020).
	Rating	When teachers find it difficult to rate a discussion on SCIs (e.g. Lee, 2022).
	Resources	When finding resources depend on teachers themselves, e.g. research skills, filtering good resources, developing resources (e.g. Stouthart et al., 2023).
	Solving SCIs	When teachers themselves do not have a clear answer to the SCI (e.g. Ozbugutu, 2022).
	Students' CK	When teacher does not know the level of students' CK, and this brings along tension (e.g. Bossér et al., 2015).
	Teacher training	The teachers do not feel like they have enough knowledge/experience/training to be able to give a certain sensitive or controversial topic, they do not feel ready to teach the topic, afraid of responsibility, being up-to-date, afraid of teaching the material poorly (e.g. Subiantoro et al., 2021).
	Time constraints	When teachers have to do more preliminary preparations for teaching SCIs (e.g. Evren-Yapıcıoğlu, 2018)..
Microsystem (58%)	Age students	Whether topic is appropriate for the age group or whether students are mature enough to discuss e.g. the nature of science (e.g. Öztürk, & Erabdan, 2019).
	Class composition	E.g. diversity of students (e.g. Hand & Levinson, 2012).
	Implementation of issues	When implementation of issues would engage students less (e.g. Eikeland & Frøyland, 2020).
	Resources	When students misinterpret resources (e.g. Ramnarain & Moleki, 2017).
	Solving SCIs	Students experience tension because of wanting to solve SCIs, e.g. feeling helpless/overwhelmed (e.g. Dawson, 2023).
	Students' argumentation	Students lack the capacity to argue/express or form their opinion in classroom discussions (e.g. Pitiporntapin et al., 2015).
	Students' CK	Whether the students have sufficient content knowledge about a certain sensitive or controversial topic or have difficulties understanding the SCI (e.g. Ekborg et al., 2012).
	Teacher training	When teachers do not have the skills to engage students (e.g. Faisal & Martin, 2022).
	Time constraints	When during the lesson, there is not enough time to go into a certain topic. (e.g. Pitiporntapin et al., 2015).
Mesosytem (2%)	Teacher training	Stakeholders' reactions due to the training of the teacher (e.g. Lee & Yang, 2017)..
Exosystem (29%)	**Class composition**	E.g. number of students, ratio male-female students, etc. (e.g. Chowdhury et al., 2022).
	Resources	Not enough/no reliable resources to implement SCIs in school. (e.g. Ozbugutu, 2022).
	Solving SCIs	When personal experiences of students influence their decision on the solving of SCIs (e.g. Rose & Barton, 2012).
Macrosystem (52%)	**Implementation of issues**	When aligning SCIs with the curriculum is difficult (e.g. Lee, 2022).
	Resources	Not enough/no reliable general resources to implement SCIs (e.g. Siani & Yarden, 2021).
	Solving SCIs	When culture of students influences their decision on how to solve SCIs (e.g. Rose & Barton, 2012).
	Teacher training	Deficiencies in teacher education, when teachers find it difficult to link SCIs to the curriculum (due to CK). (e.g. Ozbugutu, 2022).
	Time constraints	When curriculum allocates too little time for a specific issue (e.g. Eidin & Shwartz, 2023).
Chronosystem (2%)	Teacher training	When teacher must update their knowledge to current SCIs, e.g. COVID-19 (e.g. Huang & He, 2023).

Context as determinant - NS

- = Determinants in ≠ ecological systems
- Struggling with multiperspectivism (cfr. one paradigm in NS)
- Mesosystem?
- Rational, superficial

Context as determinant – SSH

System (%)	Determinant	Elaboration
Individual (14%)	Emotions	Teachers prefer to remain in emotional comfort zone. Some topics can trigger emotions and emotional reactions (e.g. Garrett et al., 2020).
	Ethnic identity	The teacher's ethnic identity or background (e.g. Delale-O'Connor & Graham, 2018).
Microsystem (78%)	Classroom atmosphere	The atmosphere within the classroom. Whether there is a safe space to talk about SCIs, whether students feel supported in class discussions. A safe atmosphere makes teaching SCIs less risky (e.g. Tannebaum, 2020).
	Emotions	Teachers fear hurting students' feelings or inducing emotions or stress (e.g. Cassar et al., 2023).
	Ethnic identity	Students' ethnic identity or background (e.g. Woolley, 2017).
	Students' reactions	Students can react emotionally or aggressively (e.g. Geller, 2020).
Mesosystem (3%)	Touching personal experiences	The topic speaks to a certain experience of the teacher (e.g. Kaarlõp et al., 2022).
Exosystem (25%)	Ethnic identity	Parents' ethnic identity or background (e.g. Delale-O'Connor & Graham, 2018).
	Touching personal experiences	The topic speaks to a certain experience of the student (e.g. Tribukait, 2021).
Macrosystem (13%)	**Gender**	Tension from discussing gender, sexual orientation, but not applied to individual (Richard et al., 2015).

Context as determinant – SSH

- = Determinants in ≠ ecological systems
- Mesosystem?
- Identity, emotions, personal experience, etc.
- Skilled in multiperspectivism (cfr. different paradigms are plausible)

Context as determinant – DG

System (%)	Determinant	Elaboration
Individual (20%)	Curricular expectations	What teachers think about the (ir)relevance of a particular topic in education (e.g. Dunlop et al., 2021).
	Spiritual identity	Teacher's religious beliefs and values (e.g. Stahi-Hitin & Yarden, 2022).
	Teacher neutrality	The teacher finds it difficult to disclose their own beliefs or values, nor do they want to indoctrinate the students (e.g. Reyes et al., 2021).
	Teaching method	Teacher approaches SCI according to their own authenticity and personality, e.g. inducing emotions (e.g. Boyd et al., 2023)
Microsystem (53%)	Class management	Teacher loses control over the classroom. The teacher is not able to handle the situation. There is chaos and the discussion goes in all directions (e.g. Flensner, 2020.
	Curricular expectations	When students have an issue with a particular topic placed in the curriculum (e.g. Halabi, 2022).
	Different perspectives	Teacher and students have different perspectives on certain SCI (e.g. Hammer, 2023).
	Spiritual identity	Students' religious beliefs and values (e.g. Savenije & Goldberg, 2019).
	Teacher neutrality	Tension in the classroom arises because teacher does not disclose their own beliefs or values (e.g. Halabi, 2022).
	Teaching method	Teacher adapts the teaching method based on certain student, class atmosphere, or composition (e.g. Zembylas & Loukaides, 2021).
Mesosystem (33%)	Different perspectives	When the school's perspective differs from others, such as the teacher or parents (e.g. Kaarlõp et al., 2022).
	School environment	The culture within the school (e.g. Lin et al., 2015).
	Spiritual identity	The religious beliefs, values, and identity of the school (culture) (e.g. Siani & Yarden, 2020).
	Stakeholders' reactions	Reactions from parents and administrators. For example, parents disapprove of teachers teaching or discussing certain SCI and complain to the teacher directly (e.g. Pace, 2021).
	Teaching method	Teachers adapts teaching method to the school culture. The school culture can support more teacher-centred or student-centred teaching, or the teaching of SCIs in general (e.g. Shepler & Williams, 2017).
Exosystem (25%)	Different perspectives	Parents' perspective differs from others, such as the school or teacher (e.g. Kaarlõp et al., 2022).
	Family influences	Political allegiance of parents, parents' occupation, dominant values or beliefs within the family (e.g. Chowdhury & Siddique, 2017).
	School environment	The culture and environment outside and surrounding the school (e.g. Reilly & Niens, 2014).
	Spiritual identity	Parents' religious beliefs and values (e.g. Hanley et al., 2014).
	Stakeholders' reactions	Fear of reactions from parents or administrators. For example, teachers fear that parents disapprove of them teaching or discussing certain SCI. Or parents disapprove of teacher teaching or discussing SCI and they are notified indirectly through principal or students (e.g. Walker & Langan, 2016).
	Teaching method	Teachers adapt their teaching approach to, e.g. job of students' parents (e.g. Gibbs, 2022).
Macrosystem (60%)	Curricular expectations	The way in which the teacher follows, fits, or interprets the curriculum or exams (e.g. Hayosh & Paul-Binyamin, 2023).
	Religion	Teacher's or students' religious beliefs cause conflict with SCI, (e.g. Quartermaine, 2017).
	Teaching method	Teacher adapts teaching method to textbook or curriculum expectations, (e.g. Siegel-Stechler & Callahan, 2022).
	Topic	The topic itself is sensitive and controversial, and, therefore, leads to CT and/or PF (e.g. Hansson et al., 2023).
Chronosystem (2%)	Religion	The evolution of the extent to which people find religion important (e.g. Tribukait, 2021).
	Topic	SCIs are dynamic and change over time. They evolve with societal changes that are sensitive or controversial (e.g. Nation & Feldman, 2021).

Context as determinant – DG

- DG > DS determinants

- More mesosystem

Topic as a determinant

- Topic itself can lead directly to classroom tension and/or pedagogic frailty
  - E.g., climate change, discrimination
- ‘Hot’ topics
- Soft approach, concerning life systems

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- Domain-general > domain-specific determinants of CT and/or PF
- SSH teachers are skilled in handling SCIs (controversy as pedagogy (Petrovic, 2016), pedagogy of discomfort (Zembylas, 2015))

  <> NS teachers
- Context is a determinant
  - Microsystem
- Topic is a determinant

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Thank you for your attention!
Any questions?

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Implications

- Multiperspectivism
- Cross-domain communication
- Professional development
- Teacher training programs

Future research

- Concept map-mediated interviews with Flemish teachers in secondary education
- Experience sampling method (ESM) and electrodermal activity (EDA) with Flemish teachers in secondary education
- Role of emotions in the teaching and learning process when teaching SCIs
- Teaching method (PF) as a determinant of classroom tension

Topic as determinant - NS

		Soft	Hard
Life	Pure	Abortion, discrimination (e.g. racism), diseases (e.g. c, HIV-AIDS, mad cow disease), environment (e.g. bacterial resistance, climate change), evolution, genetics (e.g. stem cells), sex and nudity (e.g. pregnancy)	Diseases (e.g. HIV-AIDS, mad cow disease), environment (e.g. climate change, sustainability), evolution, genetics (e.g. stem cells), LGBTQ communities, sex and nudity (e.g. pregnancy)
	Applied	Abortion, discrimination (e.g. racism), diseases (e.g. Covid-19, HIV-AIDS, mad cow disease), environment (e.g. bacterial resistance, climate change), evolution, fertility, genetics (e.g. stem cells), sex and nudity (e.g. pregnancy), surgeries (e.g. organ donation or transplantation)	Diseases (e.g. HIV-AIDS, mad cow disease), environment (e.g. climate change, sustainability), evolution, genetics (e.g. gene technology, stem cells), LGBTQ communities, sex and nudity (e.g. pregnancy), syndromes
Non-life	Pure	Environment (e.g. climate change), nuclear energy	Big Bang, environment (e.g. climate change), fire retardants, nuclear energy
	Applied	Environment (e.g. climate change), fire retardants, fracking, hazards of humidifier sterilizer, nuclear energy, space research	Environment (e.g. climate change), fire retardants, fracking, nuclear energy, radiation

Topic as determinant - SSH

		Soft	Hard
Life	Pure	Abortion, capitalism, conflicts between groups, discrimination (e.g. racism), environment, identity, LGBTQ communities, mental health, migration, oppression, politics, race, religion, sex and nudity, socialism, terrorism, war	Diseases (e.g. HIV-AIDS), sex and nudity
	Applied	Abortion, conflicts between groups (e.g. Israel vs Palestine), discrimination (e.g. racism), environment, gun rights, LGBTQ communities, migration, monument removal, oppression, politics, religion, sex and nudity (e.g. polygamy, sexual abuse), terrorism	Diseases (e.g. HIV-AIDS), sex and nudity
Non-life	Pure	Conflicts between groups (e.g. Israel vs Palestine, Russia vs Latvia-Estonia), diseases, middle ages, migration, patriotism, religion, socialism, slavery, terrorism, war	/
	Applied	Apartheid, CLIL, conflicts between groups (e.g. Israel vs Palestine, Russia vs Latvia-Estonia), diseases (e.g. The Black Death), Irish famine, the crusades, migration, religion (e.g. the Reformation), slavery, terrorism, war (e.g. nuclear weapons, Rwandan genocide, Vietnam war, WWII (e.g. Holocaust))	

Topic as determinant – DG

		Soft	Hard
Life	Pure	***Abortion***, capitalism, conflicts between groups, *discrimination* (e.g. *racism*), *diseases* (e.g. ***HIV-AIDS***), ***environment*** (e.g. **bacterial resistance**, **climate change**), **evolution**, **genetics** (e.g. stem cells), ***LGBTQ communities*** (e.g. homophobia), mental health, migration, politics, poverty, race, religion, sex and nudity (e.g. pregnancy), socialism, stereotypes, **terrorism**, war	*Discrimination* (e.g. *racism*), *diseases* (e.g. ***HIV-AIDS***), ***environment*** (e.g. **climate change**, **sustainability), evolution**, **genetics**, ***LGBTQ communities***, ***sex and nudity*** (e.g. **pregnancy**)
	Applied	***Abortion***, **animal rights**, **coffee industry**, conflicts between groups (e.g. Cyprus vs Turkey (e.g. peace education program), **Israel vs Palestine**), *discrimination* (e.g. *racism*), *diseases* (e.g. ***HIV-AIDS***), ***environment*** (e.g. **bacterial resistance**, **climate change**), euthanasia, **evolution**, fertility, **genetics** (e.g. cloning, stem cells), causes of crime, gun rights, ***LGBTQ communities*** (e.g. homophobia), migration, monument removal, politics, poverty, religion (e.g. Catholic vs Protestant, Islam), ***sex and nudity*** (e.g. **pregnancy**, sexual abuse), surgeries (e.g. artificial retinal transplant, organ donation or transplantation), **terrorism** (e.g. Paris attacks), Umbrella movement	*Discrimination* (e.g. *racism*), *diseases* (e.g. ***HIV-AIDS***), ***environment*** (e.g. **climate change**, **sustainability), evolution**, **genetics** (e.g. GMOs), ***LGBTQ communities***, ***sex and nudity*** (e.g. **pregnancy**), syndromes
Non-life	Pure	Colonialism, conflicts between groups, conspiracy theories, diseases, ***environment*** (e.g. **climate change**), middle ages, migration, patriotism, politics, religion, slavery, **terrorism**, violence, war	Age of the world, Big Bang, conflicts between groups, ***environment*** (e.g. **climate change**)
	Applied	1965 affair, Apartheid, CLIL, colonialism, conflicts between groups (e.g. **Israel vs Palestine**, Russia vs Latvia-Estonia), diseases (e.g. The Black Death), earthquakes, ***environment*** (e.g. **climate change**), fracking, Irish famine, the Crusades, migration, politics, religion (e.g. the Reformation), slavery, **terrorism** (e.g. Paris attacks), war (e.g. Armenian genocide, Civil war, nuclear weapons, Rwandan genocide, Vietnam war (e.g. **WWII** (e.g. Holocaust)), word generation program	Conflicts between groups (e.g. Russia vs Latvia-Estonia), ***environment*** (e.g. **climate change**), fracking