Providing for gifted students:

Differentiating the culture, climate and context

John Munro

Change is how gifted learning is seen

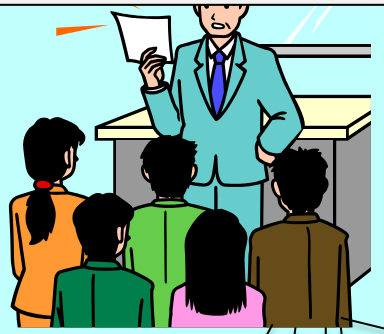
Psychometric (IQ-based) Model of Giftedness

Giftedness defined by IQ score and this is relatively fixed, innate.

Emphasises measurable intellectual abilities (e.g., reasoning, memory, verbal skills).

Correlates with high academic performance in traditional subjects like math and language arts.

Developmental/Interactionist Models of Giftedness



Giftedness = IQ + creativity + motivation, + task commitment + and social + emotional factors.

Talent develops through interaction with environment (e.g., opportunities, mentors, family support).

multiple domains of talent, including artistic, athletic, leadership, and social talents.

Giftedness is developmental- emerges over time, affected by life experiences and educational context.

Focuses on *talented performance* rather than just potential.

Issues in the learner-culture interaction

Classroom culture

- Quality of intellectual support
- Quality of emotional support
- Quality of social, emotional support
- Infrastructural, economic resources

Wider culture

- Gender
- Home-education and economic status
- Ethnic/ racial
- Spirituality/ religion
- Extracurricular activities

How the student perceives these as supporting their learning

High -level outcomes for any topic gradually emerge as the students interact with aspects of the environment in which teaching is implemented.

Talented outcomes

- English
- Mathematics
- Physical sciences
- Technology
- Arts
- Languages
- Health and PE
- Humanities
- Social relationships

The classroom as a culture and a climate

A culture is formed by a group of individuals who share a set of values and common goals. It values specific knowledge, ways of thinking and communicating and common or agreed actions to achieve its goals.

Classroom culture has values, norms, and traditions that shape the way students and teachers interact over time. What is expected

Classroom climate -overall feeling or atmosphere at a given moment.

Each student forms beliefs about what it means to be a student and a teacher, how each role works and what are reasonable expectations. How well they can trust their teacher and themselves when learning.

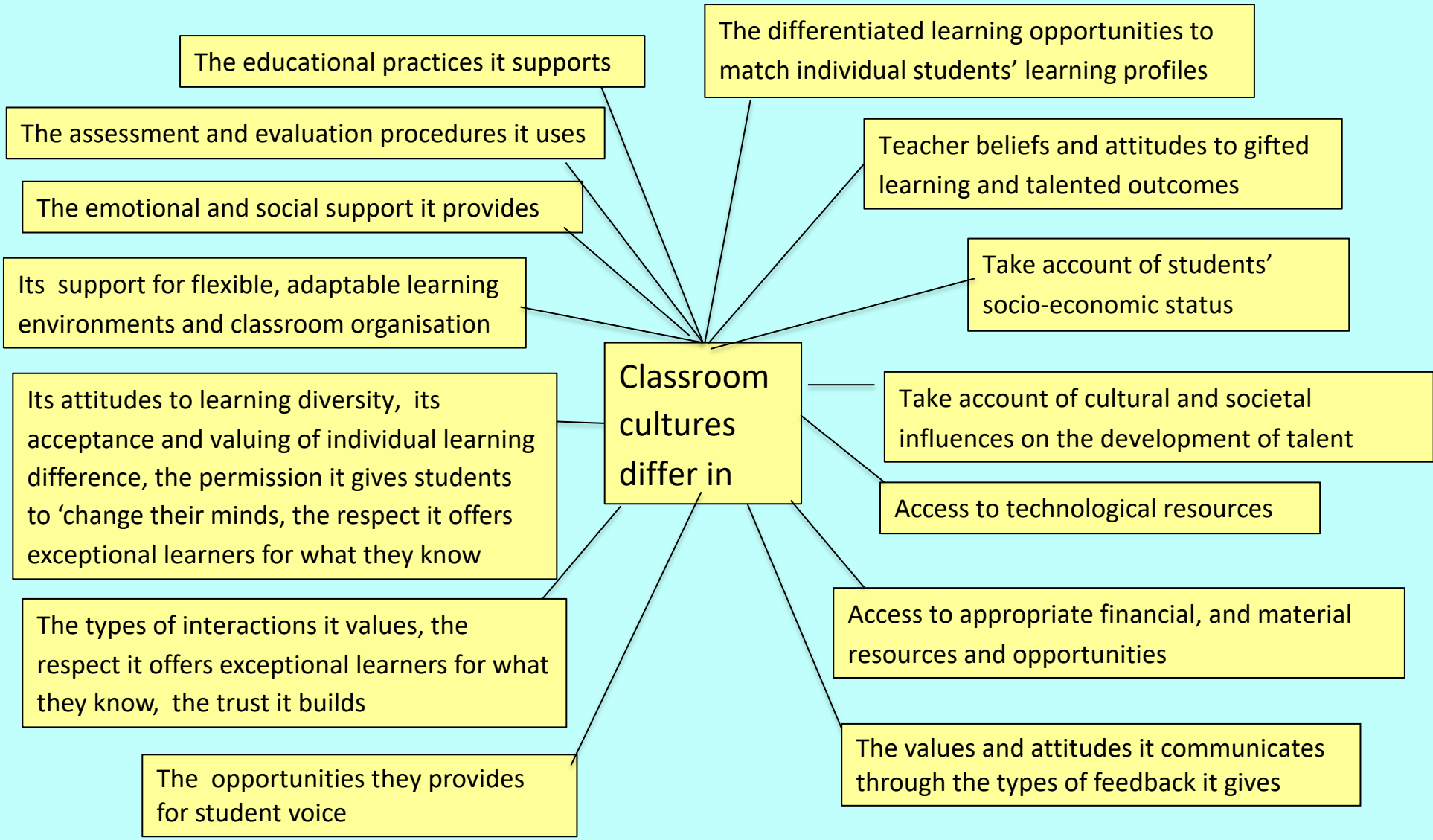
The culture and climate are invisible, communicated through how teacher interacts with students, what they show they value and expect. It can let students know that intuitive theories of action are expected and valued.

All teaching makes assumptions about how students learn. These are based on the culture and affect how teachers interact with individual students

Negative behaviours as a result of mis-match in contextual interactions

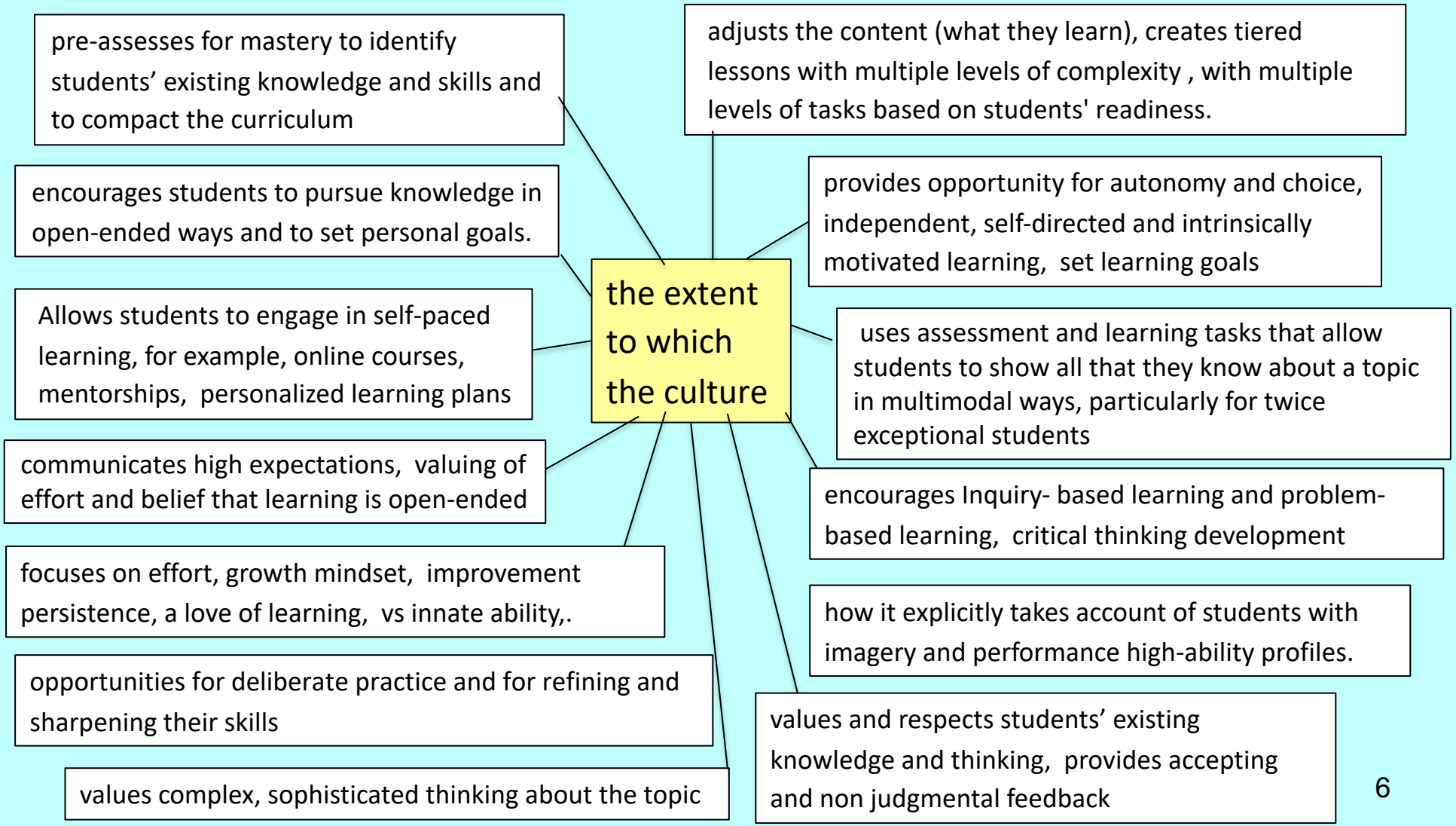
- Bored
- Anxious
- Dis-engaged, alienated, withdrawn
- Feel unsafe, insecure in the acceptability of their knowledge and social interactions, timid, confused

The cultural or context factors that impact talent development



How the culture impacts educational practices and learning opportunities match individual students' learning profiles

The educational practices and learning opportunities supported by the classroom culture may need to be differentiated to foster and scaffold gifted learning → talented outcomes. You can examine



Attitudes to learning transmitted by the culture

The classroom culture for gifted learning and talent development is communicated to and shared with students through the language used applied teachers and their align actions in their interactions with the students. These are the attitudes shared by the teacher.

Attitudes to learning the classroom culture can foster explicitly and communicate

- Learning evolves, new knowledge emerges, know more in 5 minutes
- Learning equals changing your mind, learning from errors and approximations
- Learning involves acting, actions
- It's fine to know intuitively. ‘just know’, have opinions, the reasons can come later
- Learning involves investing effort
- Learning involves being resilient, looking for ways to get around obstacles and barriers
- You have time to put your mental images into words
- It’s OK to be curious and Inquire, hold unanswered questions, to ask deep, thought-provoking questions
- It's useful to try out new ideas and possibilities, explore beyond the standard curriculum
- It's good to learn by imitating, observing others
- Learning can take time, you don't need to know immediately
- encourage risk taking

Attitudes to learning transmitted by the culture

Attitudes to learning the classroom culture can foster explicitly and communicate

- Acknowledge what you don't know now and that you may know more soon,
- Respect what other people know and believe
- Be open to new possibilities, alternatives, options from others
- It's OK if others don't agree with you
- Things you can't manage now you may be able to manage better in 5 minutes
- People interpret the same information differently
- Each person’s interpretation is valuable and to be respected
- It's OK if someone doesn't agree with you
- It's good to look for patterns, similarities and differences
- It is useful to learn collaboratively and in teams, and to consider what other people think

Assess the classroom culture and climate.

How well does the classroom climate and culture :

- acknowledges explicitly and respects what students know about a topic and how they learn it;
- provides appropriate learning groups for students at any time;
- supports risk taking during learning and for building positive student attitudes to the topic and their self-identity;
-
- provides 'multi-modal' assessment opportunities for students to show their understanding and skills in multiple ways, for example, by using concrete models, drawing or by talking about their understanding.
- provides feedback on student progress that is based on performance toward the learning goals;
- helps students see how their outcomes fit with their personal and future goals;
- values and respects demonstrably students from culturally and linguistically different backgrounds.

Assess student's ability to interact with the teaching.

How to assess students' capacity to explicate and evaluate their personal ITAs?

identify or frame up provocative questions or challenging issues as problems and plan how to investigate them. Can they plan a sequence of questions that lead to the problem?

examine the ideas from multiple perspectives; organise, link, and prioritise ideas in multiple ways,

deal with barriers to learning at any time, explore, use brainstorming and concept mapping

Monitor and assess students' ability to

examine apparently ambiguous, inconsistent, contradictory or controversial aspects from multiple perspectives, analyse, compare, contrast and evaluate ideas

infer patterns and relationships, think divergently and flexibly, and explore possibilities and consequences by asking 'what if ...', 'if… then…' and 'how might/could' questions

make links across subjects and domains, synthesise their understanding and apply it in different contexts.

How to assess the demands made by the culture for twice exceptional students to learn from the teaching information?

observe or listen strategically, take notes and outline, prioritise; when learning from a video, interviewing, discussing with a speaker such as a mentor.

To what extent does the culture require students to

use information, research and reference skills; locate and select sources, plan, organisational skills

read with comprehension, again using the study skills

use specialised perceptual-motor skills with facility; skills in using tools and equipment in science and technology, the creative arts, keyboards, information technology.

How do the classroom culture and climate allow students to display their knowledge?

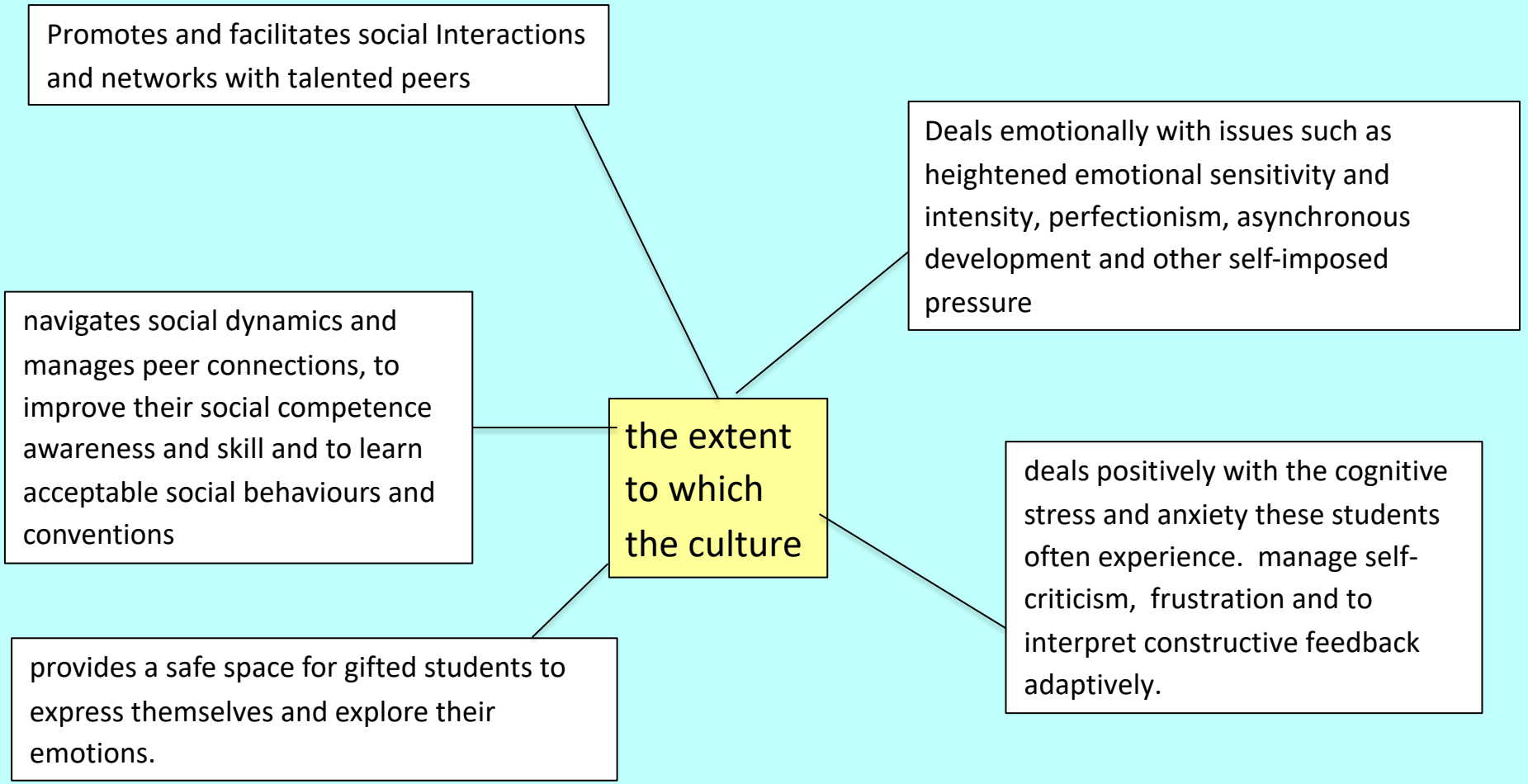
What opportunities does the culture provide for students to display their understanding

Students can show this in multiple formats:

- a literacy format: a written investigation, research report, essay, opinion, narrative, instruction manual or article
- a spoken format: a speech, debate, story, instructions, discussion, poem or values statement
- a production format: a construction, model, invention, sculpture, simulation, puzzle or exhibit
- a demonstration: a practical performance, drama, puppet show, a game
- a pictorial or image-based format: a visual or graphic representation, painting, cartoon, diagram, video, map, illustration or a photograph
- information technology format: an e- text, innovative computer game, an app, a multi-media presentation or a computer program.

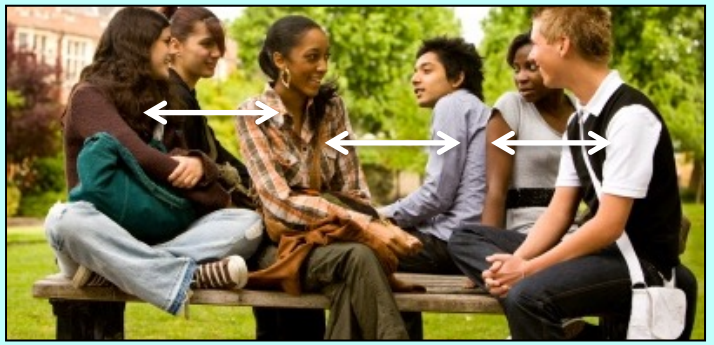
Some students, including those who are twice exceptional, may need to improve their skill to prepare oral or written outcomes. Some outcomes will be 'multi-modal'; they will use multiple contexts to communicate their understanding.

The extent to which the culture provides emotional and social support.



How is social and cultural knowledge learnt?

Successful interactions by gifted students with the teaching in the classroom environment require the use of a range of social and emotional skills. Some gifted students have issues in using these skills.



Each member needs to internalize the rules, goals for the culture

They learn this by being programmed externally by the group using analytic sequential thinking.

Many gifted students are more self-programming, internally driven.

They use global-wholistic thinking

Social problems arise because gifted learners

- are not so easily programmed externally – are more self programming
- Have fewer social role models
- Are aware they think, know and learn differently from the peers with whom they are located
- Are less interested/motivated to learn the social conventions or to align with the social goals
- Make a range of inferences about social interactions that can lead to negative feelings, anxiety, withdrawal. Anger.

Typical emotional problems experienced by gifted students

Gifted students often face unique emotional challenges due to their heightened intellectual abilities, sensitivity, and sometimes asynchronous development.

Perfectionism & Fear of Failure
- Some set excessively self- high standards
- Fear of making mistakes can lead to procrastination or avoidance of challenges.

Impostor Syndrome
- Some gifted students doubt their abilities and feel like they don't deserve their achievements.
- They may fear being "exposed" as less capable than others assume.

Existential Depression & Anxiety
- Some ponder deep philosophical or moral questions at a young age, leading to existential worry.
- A sense of injustice or a feeling of not being able to make a difference can cause frustration.

Multipotentiality & Indecisiveness
- Having too many interests and talents can make it hard to choose a path.
- They may feel pressure to "pick the right" academic focus.

Some common emotional problems they may experience include:

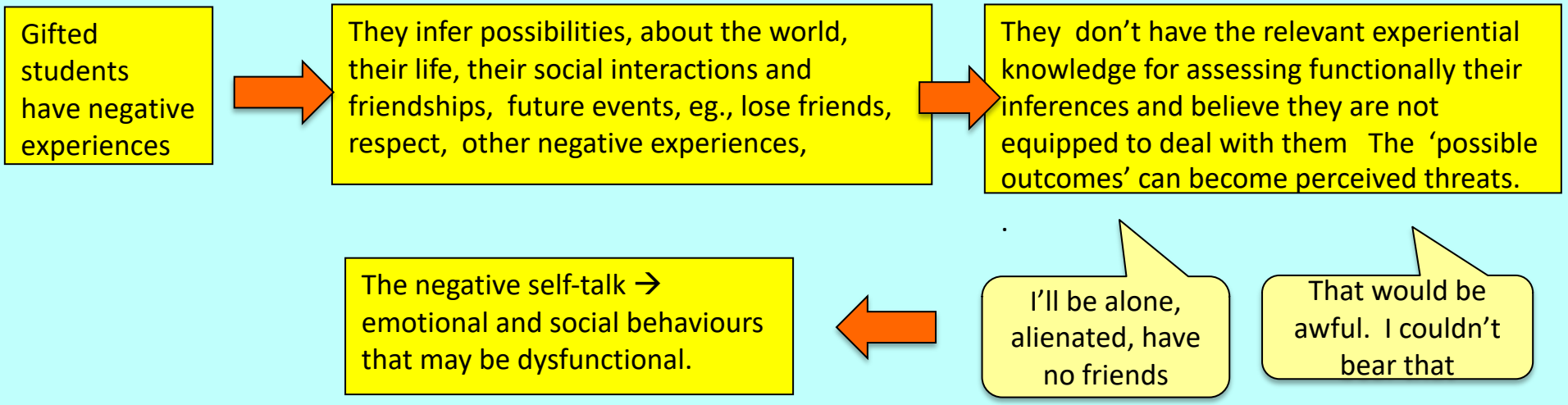
Social Isolation & Feeling Different
- Some struggle to relate to peers who do not share their interests or intensity.
- Feelings of loneliness can arise if they feel "out of sync" with their age group.

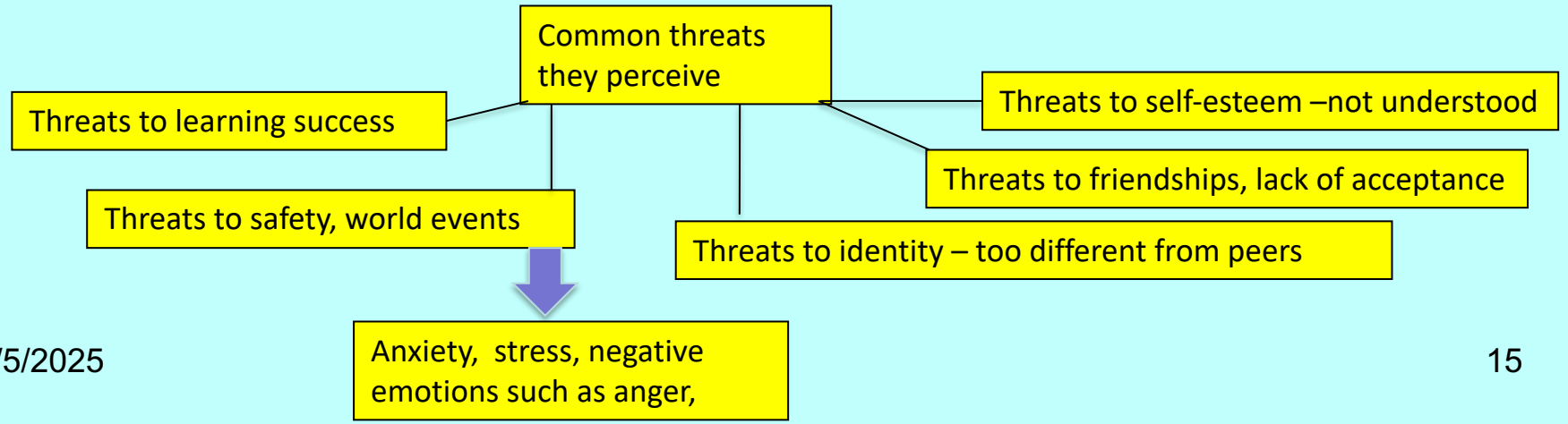
Heightened Sensitivity (Emotional & Sensory)
- Some are emotionally intense and deeply affected by criticism or failure.
- Some experience sensory sensitivities (e.g., loud noises, bright lights).

Lack of Motivation or Underachievement
- If not challenged enough, they might lose interest in school or stop trying.
- Sometimes, social pressures lead them to underachieve to fit in.

Difficulty Handling Criticism & Rejection
- Some are used to excelling, and struggle with setbacks.
- Some take criticism more personally

Advanced reasoning can cause emotional or social problems for gifted students





Our emotions are stimulated by our self-talk

You are driving along a road and someone pulls out in front of you and causes you to swerve or slow down..

That person pulled in front of me and caused me to slow down

Self talk about the situation

How dare they ! People must not do that to me.

Self talk that evaluates the situation

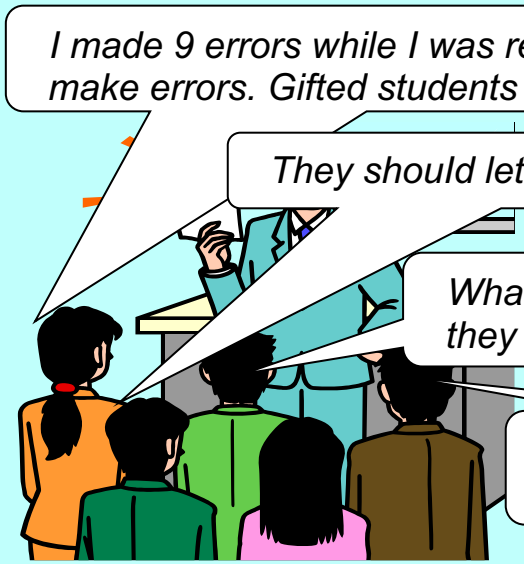
They have made me angry. I'm going to get them

Self talk that initiates the emotion

They shouldn't' have done that but I can't control what other idiots do.

If they keep doing that they will have an accident. At least I will get home safely.

Become aware of students' negative self talk and replace it with useful positive self talk



I made 9 errors while I was reading. I must not make errors. Gifted students don't make errors.

I can work out why I made the errors and not make them next time

They should let me play with them

I can try to get friendly with some of them and then they might let me join them

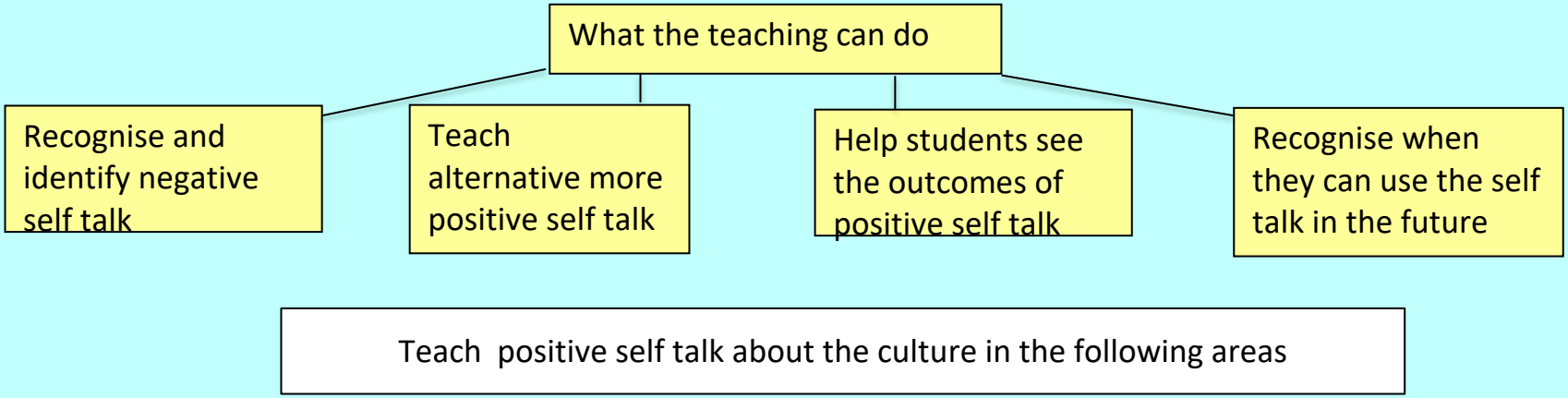
What's wrong with me? Why can't they understand what I mean?

I can try to say what I mean in other ways.

It's awful they are doing that. It's really unfair

I can't stop them from doing that. I may be able to think of things I can do

Teach positive self talk about the culture



Teach positive self talk about the culture in the following areas

Help gifted students to

- understand their giftedness, what it means to be gifted, identity exploration, allow their image of excellence to evolve, worry about not wanting to disappoint, accept who they are.
- become aware of their self talk and alternative ways of talking to themselves about situations,
- see alternatives, see other options,
- build virtual experiential and procedural knowledge,
- build their theory of mind capacity, infer how others are feeling, thinking,
- build their self efficacy in particular contexts,
- manage heightened sensitivities,

The culture can teach positive self talk in the following areas

Help gifted students to

- learn stress management and coping strategies,
- deal with higher levels of anxiety (they anticipate difficulties),
- manage expectations of self and others,
- learn how other gifted individuals managed their lives,
- deal with higher levels of anxiety (they anticipate difficulties),
- manage loneliness and social isolation,
- deal with vulnerability related to creativity,
- manage depression when struggling with existential questions,
- deal with painful school experiences,
- resolve the ideal and align with the present,
- deal with social justice issues, natural disasters that worry them,
- deal with emotions that are uncontrollable, challenging,
- deal with perfectionism.

Context adjustments for particular issues

Manage Perfectionism & Fear of Failure	Encourage a Growth Mindset – Teach them that mistakes are a natural part of learning. Set Realistic Goals – Help them break big goals into manageable steps. Model Failure Positively – Share stories of how setbacks can lead to growth.
Combat Social Isolation & Feeling Different	Find Like-Minded Peers – participation in gifted programs, clubs, or online communities Foster Emotional Intelligence – Teach social skills and empathy to relate better to others. Encourage Mentorship – link with older gifted students or adults with similar experiences.
Overcome Impostor Syndrome	Celebrate Progress, Not Just Outcomes – Encourage them to reflect on what they've learn. Normalize Self-Doubt – Let them know even successful people experience this. Use Positive Affirmations – Help them reframe negative thoughts about their abilities.
Manage Emotional & Sensory Sensitivity	Teach Emotional Regulation – Breathing exercises, journaling, or mindfulness can help. Provide a Safe Space – Create an environment where they can show feelings without judgment. Address Sensory Needs – If they're overstimulated, allow breaks or modofications like noise-cancelling headphones.
Address Existential Depression & Anxiety	Encourage Purpose-Driven Activities – Volunteering or engaging in meaningful work can help. Introduce Philosophy & Perspective-Taking – Books on ethics and philosophy can provide intellectual stimulation and reassurance. Provide Emotional Support – Let them express their thoughts freely and discuss deep topics without dismissing their concerns.

Context adjustments for particular issues

Prevent Underachievement & Lack of Motivation	Challenge Them Appropriately – Give them advanced or independent projects to keep them engaged. Encourage Autonomy – Let them have a say in their learning choices. Help Them Find Purpose – Relate school subjects to their passions or real-world problems.
Handle Criticism & Rejection	Teach Resilience – Emphasize that failure is a learning opportunity. Model Constructive Self-Talk – Help them replace “I failed” with “I learned something new.” Encourage Risk-Taking – Expose them to situations where safe failure is possible (e.g., creative hobbies, new sports).
Managing Multipotentiality & Indecisiveness	Explore Many Interests Without Pressure – Let them try different things without rushing a decision. Teach Decision-Making Skills – Help them weigh pros and cons and experiment before committing. Remind Them That Choices Aren’t Permanent – Careers and passions can evolve over time.

Learning from the gifted students: Hearing the student voice

Gifted students are usually aware of how and when they learn most successfully. They know the teaching and climate conditions that work for them, and how the provision can be improved. Ask them

how they prefer to learn and to be taught

how they perceive current provision in the school and how the curriculum, teaching, classroom culture and climate helps them learn

how they believe provision could be improved; what their 'ideal' provision would look like.

They can share educators their experiences and reflections :

They can describe and share

- how they prefer to learn
- the approaches to teaching provision that work best for them
- the environmental aspects of classrooms that help them achieve high level outcomes.
- their evaluation of aspects of the school environment that impact on their social and academic wellbeing.

how they believe provision could be improved; what their 'ideal' provision would look like.

The level of infrastructure and material support provided.

Learning from the gifted students: Hearing the student voice

For the student voice to be effective, schools need to listen actively and have the structures and mechanisms that allow it to inform the innovation. The students can be equipped to share their voice and understand and accept the intended purposes of collaborating.

Sharing their high ability narrative. Schools can use a range of activities to collect these data:

Students compose their autobiography or story of their learning history. They reflect on, analyse and evaluate their learning history and synthesise a narrative of how they prefer to learn. They can use open-ended questions to help them to prepare it:

- In what areas have they achieved high-level outcomes. How did they learn them?
- What factors do they think affected their learning success?
- What teaching strategies helped them to learn well/ restricted their learning?
- What would their ideal school and classroom look like? How would they like to see their current classroom and school change?

The students can write their autobiography, record it as an oral presentation in a video, or prepare a multi-modal presentation.

they respond to interviews and surveys that ask about their learning history.

What does the gifted student voice say about the culture?

What do gifted students see as the preferred characteristics of a supportive classroom environment and culture? Students can share their perceptions of how the classroom culture has supported their learning profile in a range of ways:

How it has provided the opportunity for them to learn optimally.

How teachers and peers have responded to their learning activity.

The level of infrastructure and material support provided.

Schools can initiate student contribution in these areas through open-ended discussion and the use of questionnaires.

What does the gifted student voice say about the culture?

Intellectual Challenge & Depth
- Opportunities for deep exploration of topics rather than surface-level learning
- Higher-order thinking, open-ended discussions, and real-world applications
- Fast-paced learning with fewer repetitions of mastered content

Respect for Student Input
- Teachers who listen to and incorporate student ideas and feedback
- A culture of mutual respect where students feel valued for their perspectives
- Encouragement of curiosity and questioning rather than rote compliance

Supportive, Non-Judgmental Environment
- Encouragement of risk-taking and creative thinking without fear of failure
- Emphasis on effort and growth rather than just achievement
- Emotional and social support, recognizing unique challenges of giftedness

Like-Minded Peers & Intellectual Community
- Grouping with intellectual peers for collaboration and stimulating discussions
- Access to mentors, experts, or learning communities outside of school
- Avoidance of isolation due to asynchronous social or academic development

Gifted students consistently express preferences for specific classroom cultures in student voice research. These include:

Autonomy & Choice
- Freedom to choose topics, projects, or methods of demonstrating understanding
- Opportunities for independent or self-directed learning
- Less rigid structures and more flexibility in learning pathways

Flexible and Differentiated Instruction
- Acceleration options (subject-based or grade-skipping)
- Compacting curriculum to avoid redundancy
- Personalized learning that adjusts to individual strengths and interests

Authentic Learning Experiences
- Project-based, inquiry-driven, or problem-solving approaches
- Real-world connections, such as internships, competitions, or service learning
- Exposure to complex, interdisciplinary challenges rather than simple tasks

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Part 10: synthesise differentiation of the culture and climate with curriculum and teaching.

The curriculum and teaching are embedded in the classroom culture and climate. The student interacts with them in the culture and climate-together they comprise the students' zone of proximal development.

The success of the curriculum and teaching is determined by the features of the culture and climate. The culture and climate can improve the quality of the interaction between the students and the curriculum and teaching and enhance the likelihood of talented outcomes

How can the family culture support gifted children

Understand and support how your gifted child learns and thinks.

- This is different from how regular children learn and think.
- Help them see all they know and can do and indicate your valuing of it.
- Try to tap in to their self-talk, both positive and negative.

Accept, and respond constructively to their vulnerabilities

- Examples are peer group interactions, self-doubts, awareness that they are different.
- Support and accept as much as possible their ways of doing things.
- They may perceive threats that others don't see.
- Ensure that the home is a safe place where they feel comfortable expressing themselves.

Value their intellectual curiosity.

- Encourage their exploration, the questions they ask, and their intellectual risk-taking.
- Share in their learning in the home, for example, through investigations, discussions
- create a culture where giftedness is normalized and respected.

Promote Emotional Support and Understanding.

- Acknowledge your child's heightened emotional sensitivity and asynchronous development.
- It is often necessary to be empathetic and patient.
- Their perfectionism and intense interest in particular issues can add to the vulnerabilities

Encourage Balance

- Support non-academic growth as well as intellectual achievement.
- Avoid overemphasis on performance. Emphasize effort, curiosity, and well-being.

Celebrate uniqueness

- Avoid comparing with siblings or peers- this can foster resentment or pressure.
- Support identity development: being gifted is just one part of who they are, helping them build a well-rounded sense of self.

Teach Resilience and Coping Skills

- Normalize failure and struggle. Show that setbacks are part of growth, and perfection is not the goal.
- Develop coping strategies: Teach time management, emotional regulation, and stress management

Be Advocates

- It is recommended that you work closely with your child's schools to ensure their needs are met.
- Access resources such as workshops, other families, or professional guidance to help with this.

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Thank you for listening.

My very best wishes with your important work in this area in the future