



Mahidol University
Wisdom of the Land

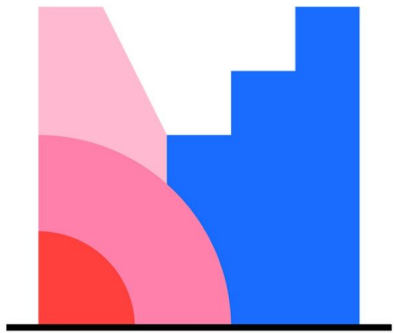
Soft Skills in 21st Century and Assessment

Assoc. Prof. Dr. Patcharin Panjaburee

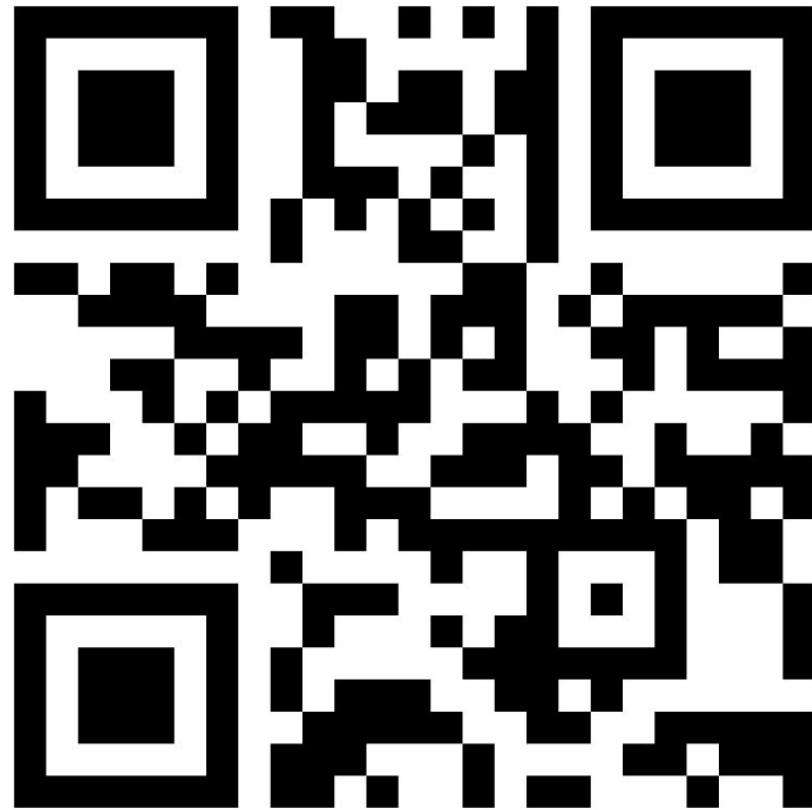
Asst. Prof. Dr. Pratchayapong Yasri

Dr. Suthiporn Sajjanroj

Institute for Innovative Learning, Mahidol University

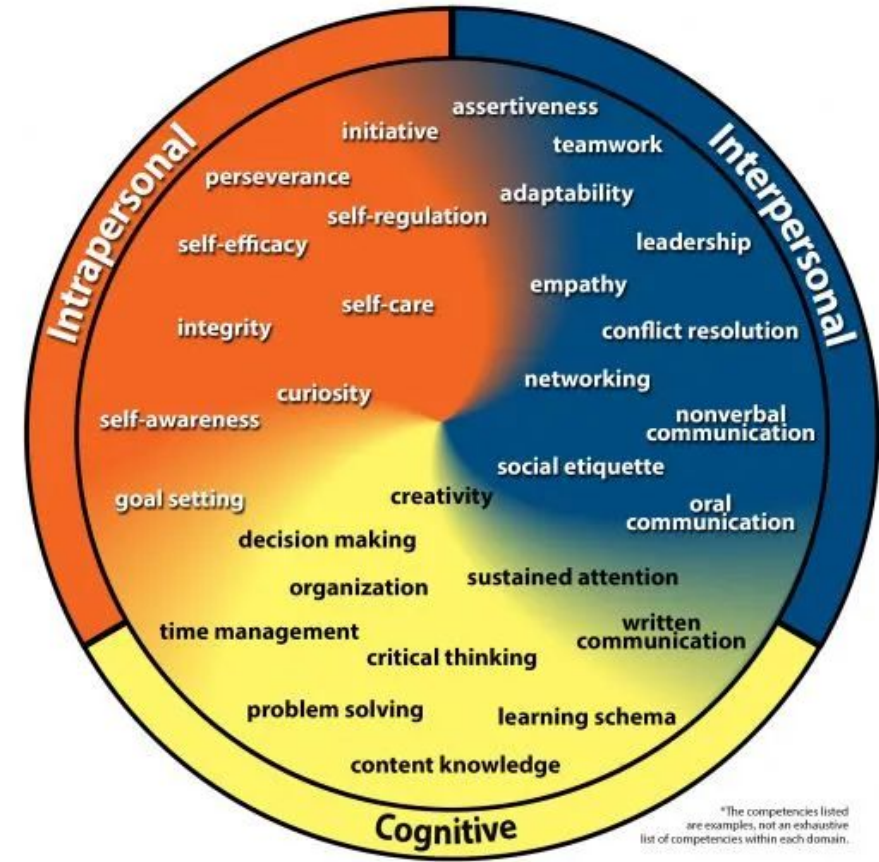
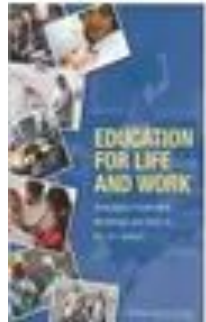


Mentimeter





Soft skills in the 21st century



*The competencies listed are examples, not an exhaustive list of competencies within each domain.



Valuable Interpersonal Skills for Your Career



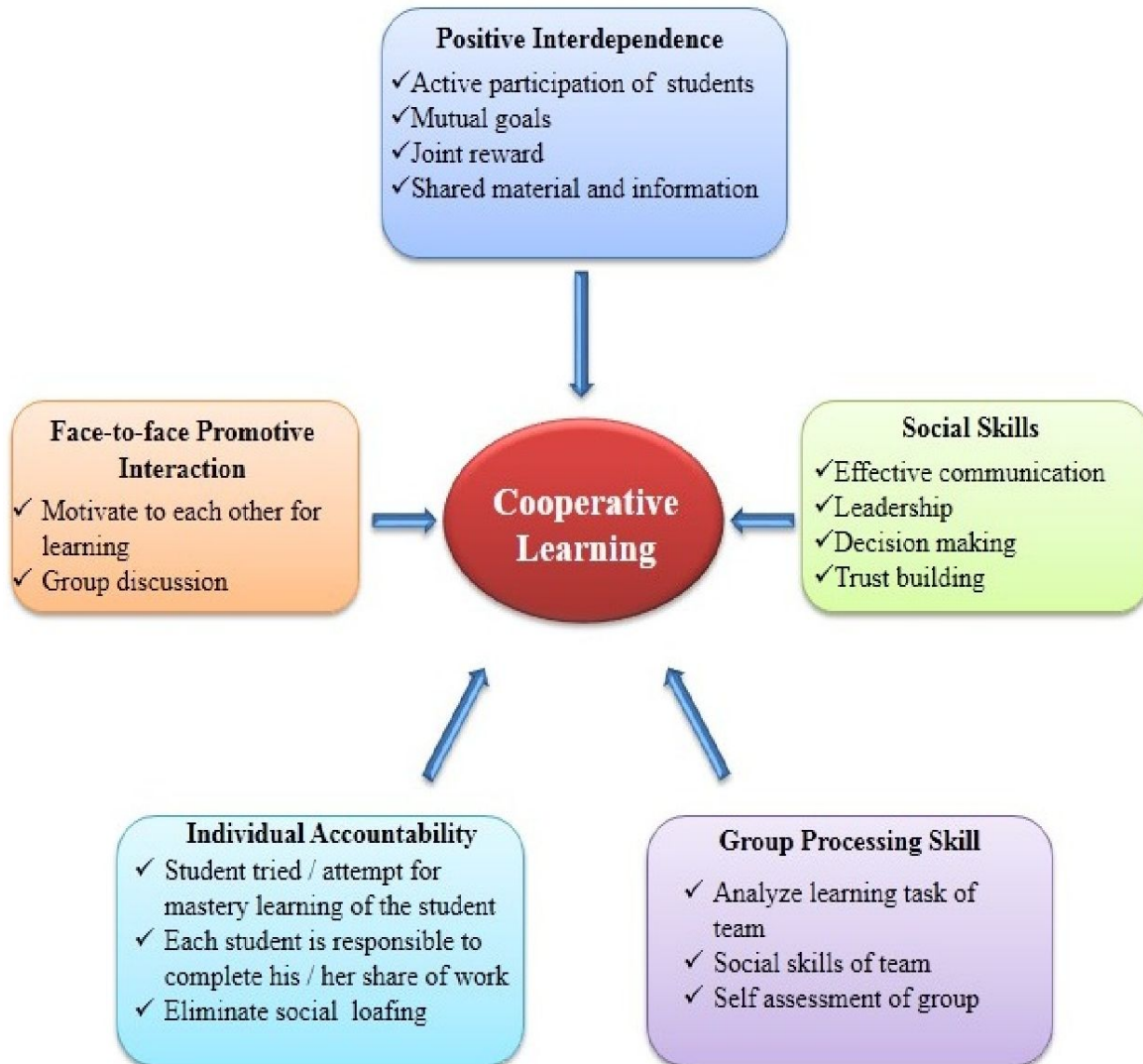
Please visit this website for more information



- **Communication:** Non-verbal, verbal, public speaking
- **Conflict management:** Mediating, negotiating
- **Empathy:** Caring, patience, sensitivity, compassion
- **Leadership:** Instructing, inspiring, motivating
- **Listening:** active listening, inquiry
- **Positive attitude:** friendliness, social skills
- **Teamwork:** collaboration, team-building, facilitating



Please visit this website for more information



- **Interdependence**
- **Social skills**
- **Teamwork skills**
- **Group discussion**
- **Individual accountability**

Yaduvanshi, S., & Singh, S. (2015). Cooperative Learning: An innovative pedagogy for achieving educational excellence. *International journal of applied research*, 1, 274-279.

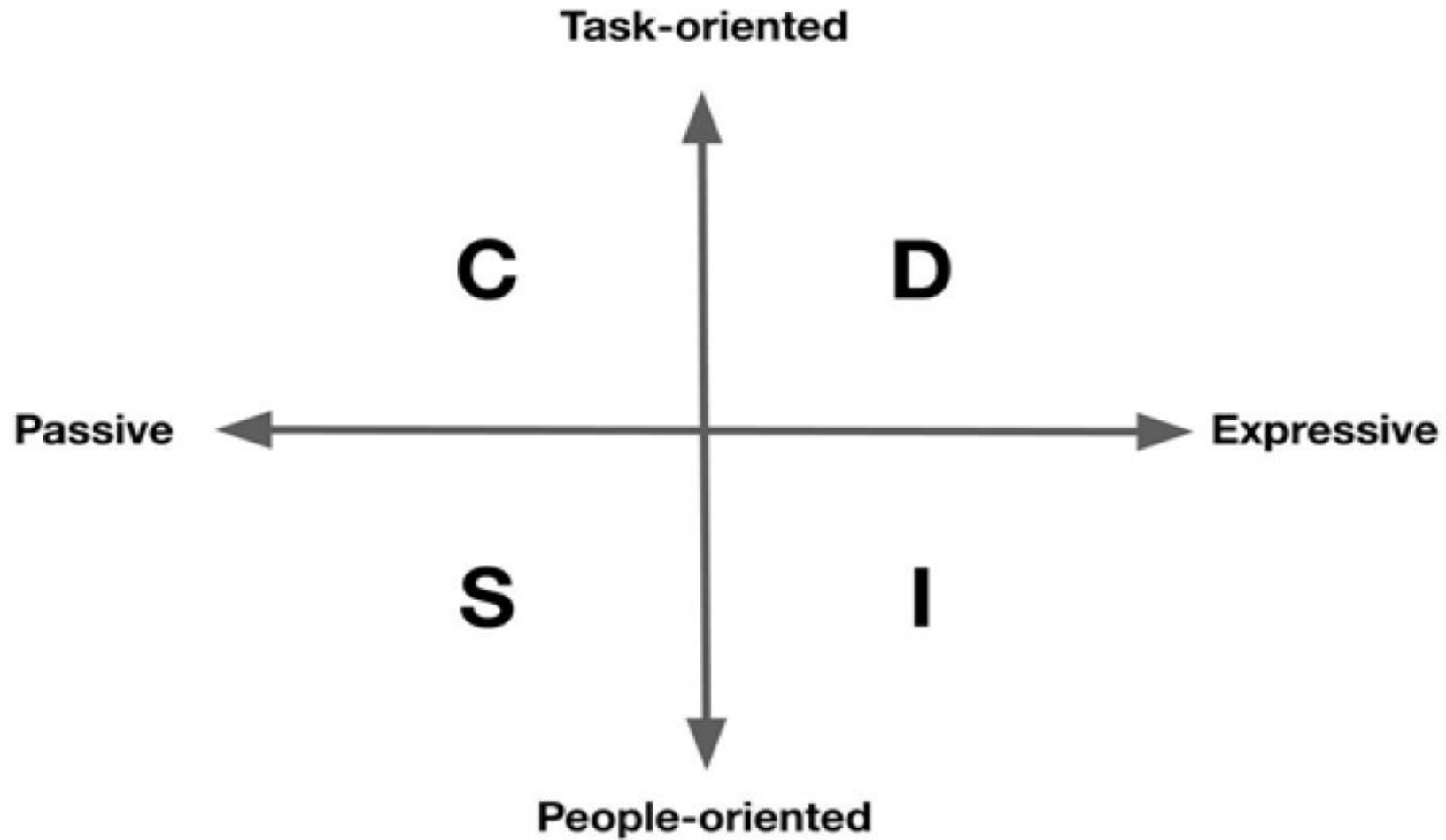


How to hone interpersonal skills





Figure 1. The DISC personality types





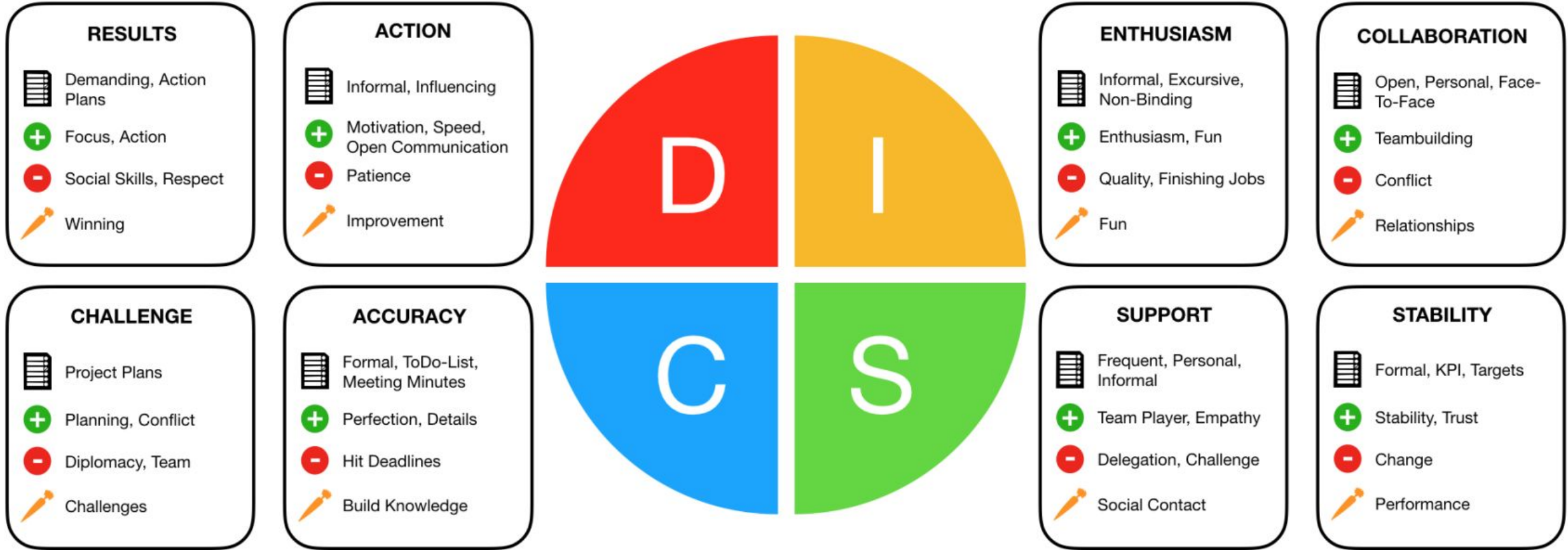
DISC model







DISC model





DISC model



People look up to me



I tend to be a kind person



I accept life as it comes



~~People say I have a strong personality~~

28 groups of four statements



How to hone interpersonal skills

COOPERATIVE LEARNING

Cooperative learning is a mode of teaching where the educator leaves each member of the student group with the responsibility of uplifting the academic performance of the others

Teacher involvement is more visible

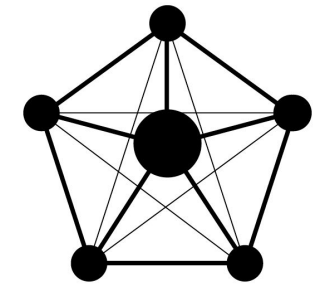
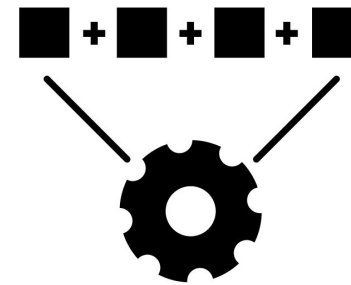
Educator reviews and assesses the work and awards marks to the students

COLLABORATIVE LEARNING

Collaborative learning is a mode of teaching where the students are left to get together and work on a given project as a team

Limited teacher involvement

Students do self-assessments on both individual and group performances

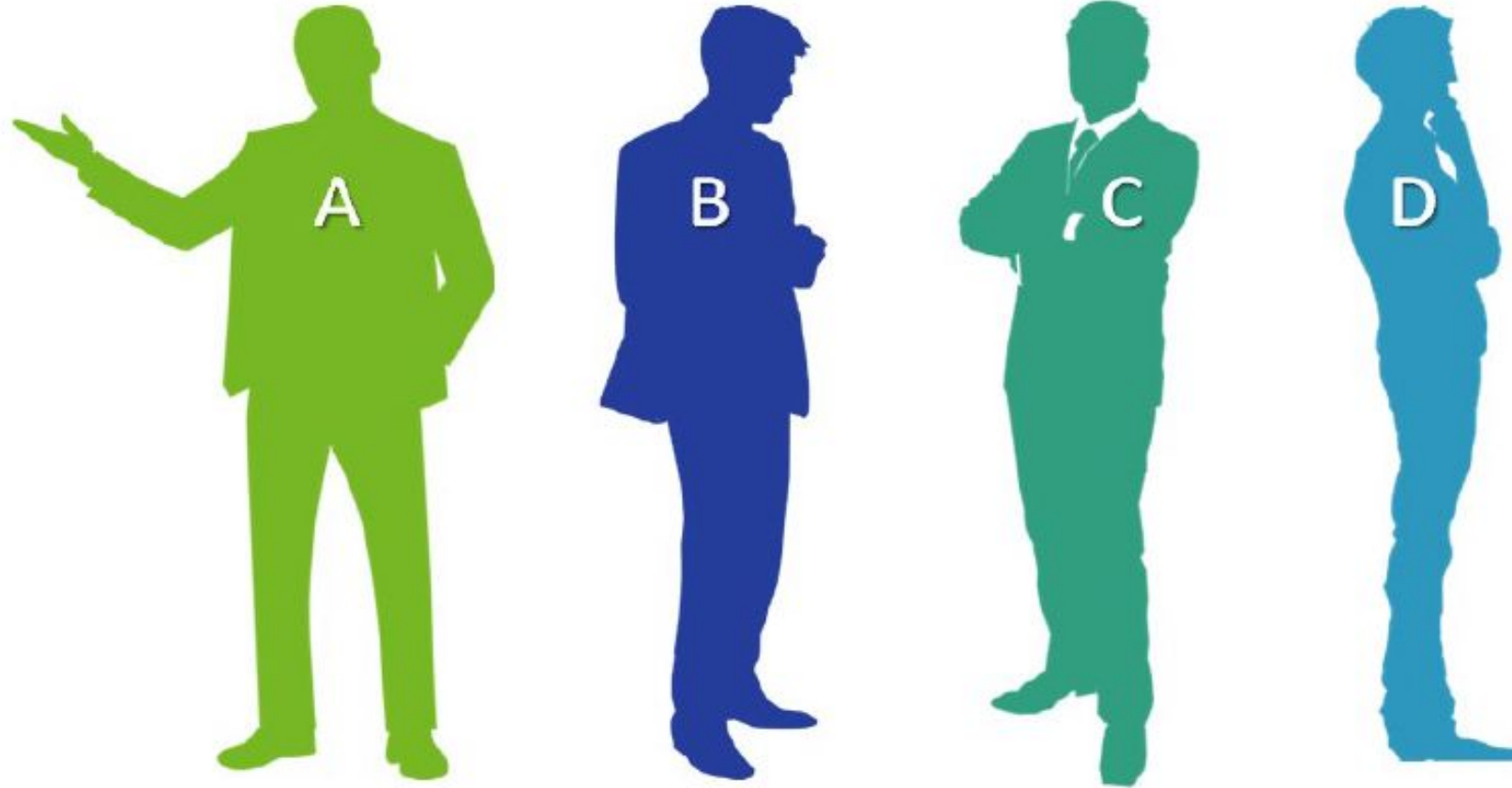


COOPERATION vs **COLLABORATION**

CEO^{FOR}
ONE
MONTH



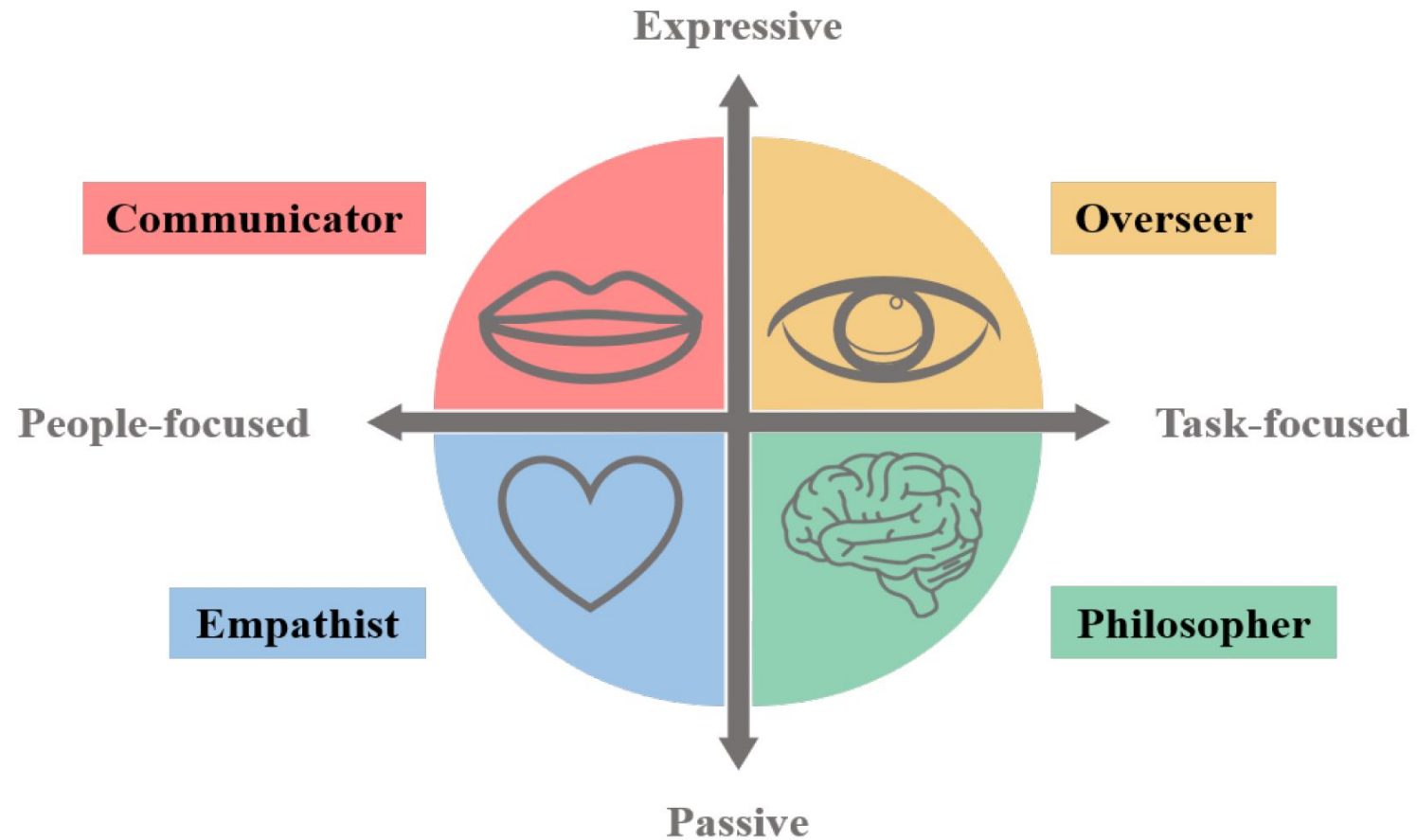
COPE learning model





COPE learning model

Figure 3. The COPE model for cooperative learning in classrooms





COPE learning model

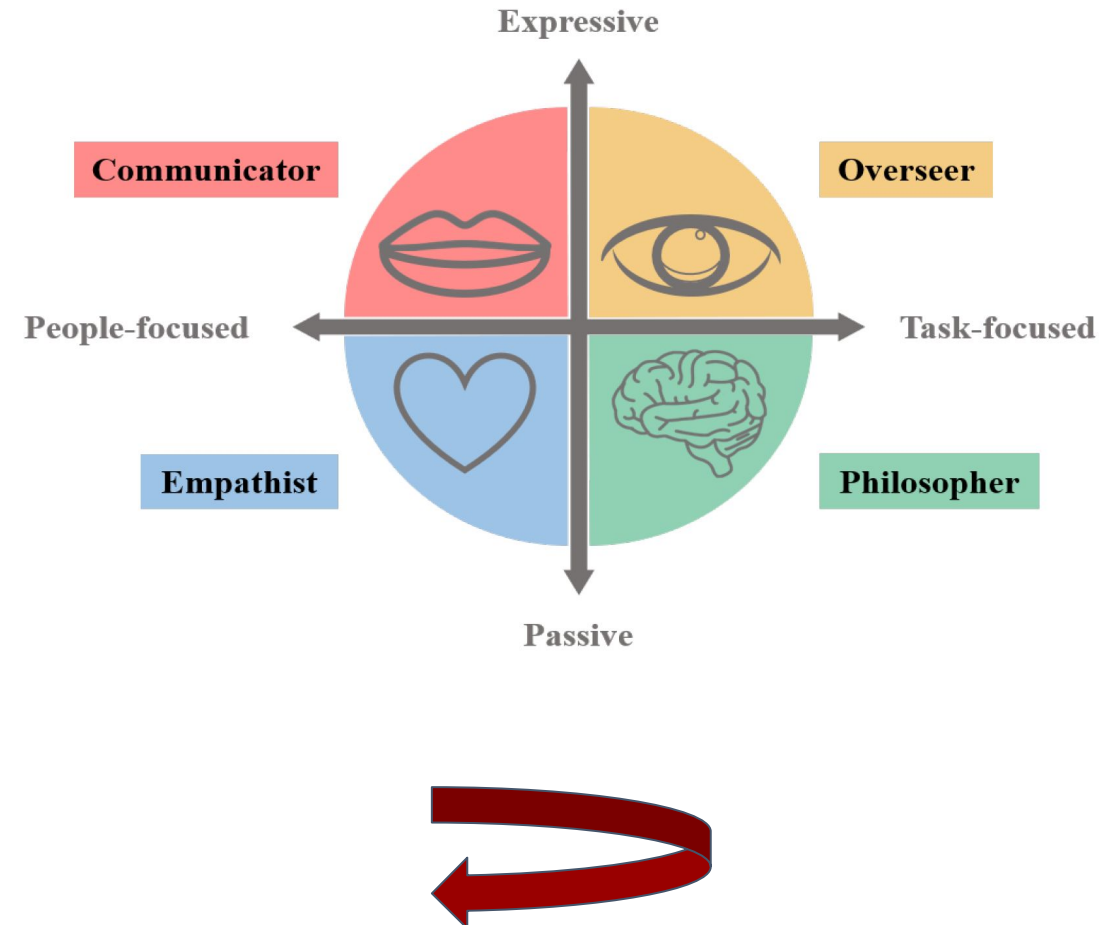


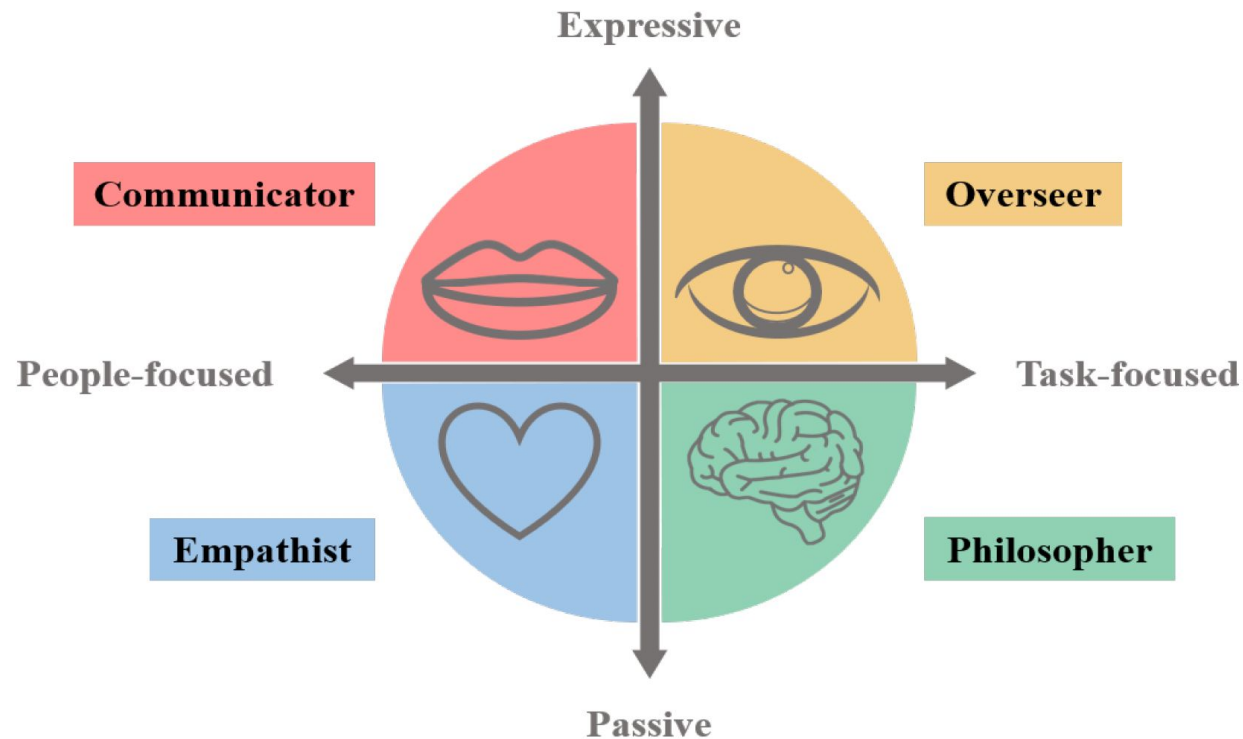


COPE learning model

Table 1: List of designated roles for each assigned position in a team

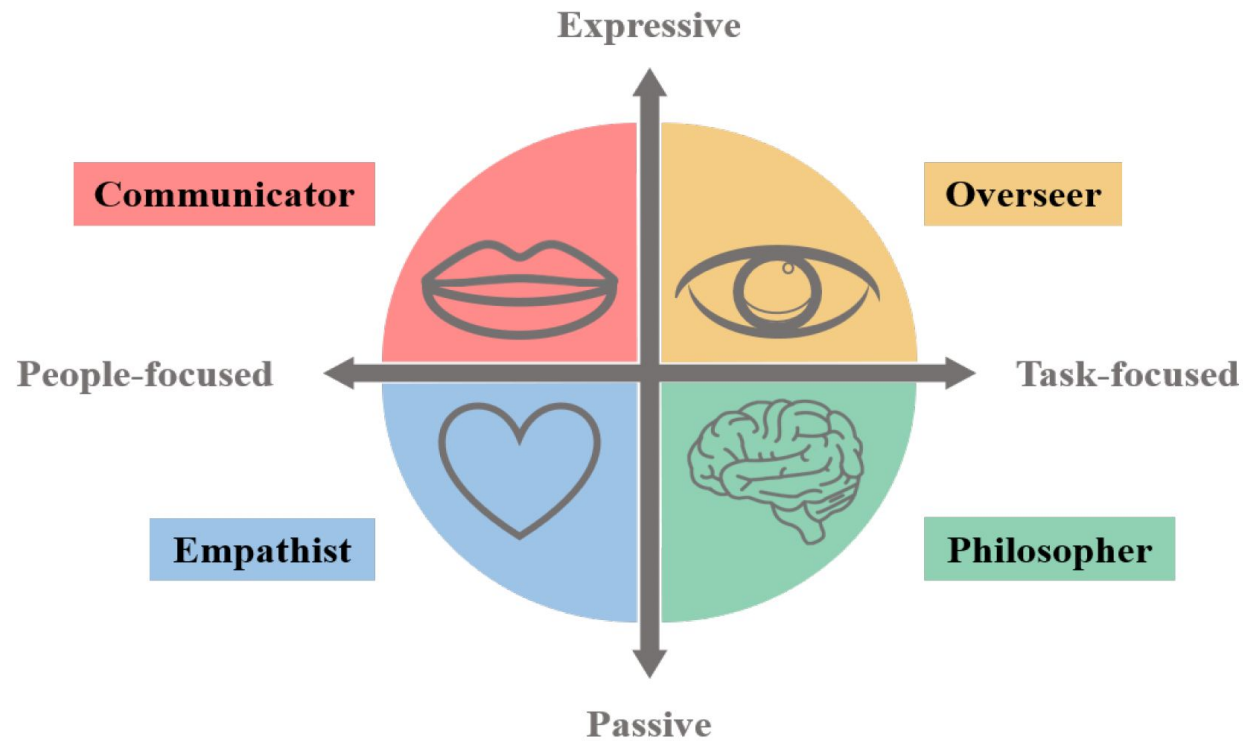
Member	Designated roles
Communicator	<ul style="list-style-type: none"> - Concentrate on the delivery of information discussed in the team - Be prepared for questions during presentation - Translate scientific terms into layman language - Link up with other team members
Overseer	<ul style="list-style-type: none"> - Initiate each phase of work progress - Manage the workflow including task allocation and time management - Make decisions for the team where diverse ideas emerge - Be the middleman for the team
Philosopher	<ul style="list-style-type: none"> - Calculate, analyse, and critique minor details - Suggest alternative methodologies for the task - Keep the rule as planned - Record the findings
Empathist	<ul style="list-style-type: none"> - Support the team physically and emotionally - Encourage team effort - Resolve any conflicts that may arise during work progress - Facilitate the others when appropriate





- **Interdependence**
- **Social skills**
- **Teamwork skills**
- **Group discussion**
- **Individual accountability**

Yaduvanshi, S., & Singh, S. (2015). Cooperative Learning: An innovative pedagogy for achieving educational excellence. *International journal of applied research*, 1, 274-279.





Intrapersonal Skills

A decorative graphic consisting of a cluster of blue dots of varying sizes and a golden wavy line below it.

01

Consideration of
other people's views

02

Adaptability



Why intrapersonal skill is important?



Industrial workforce

Working together as a team

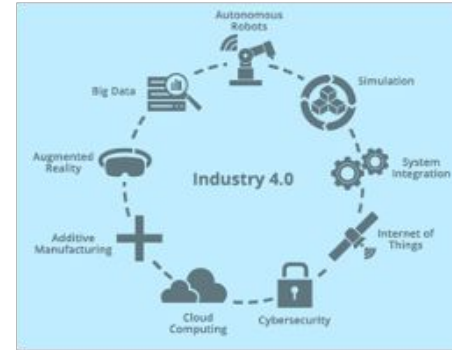
Managing conflicts

Community-centric

Interpersonal skills gained importance



Why intrapersonal skill is important?



Technology created more space between people

Social system change drastically

Lack of time; Need for independence

Dependence on **Family system**
to build up skills

Intrapersonal skills gained importance



01

Consideration of other people's views

- Value Education
- Care Education
- Empathy





The ability to read the signals in others varies on the basis of our level of empathy

(p.113, Purushothaman, 2021).

Facial expression

Tone



Verbal cues

Language cues

Gesture



Empathy Checklist

No.	Statements	Yes	No
1.	I can understand other's point of view with ease.		
2.	I can avoid being judgmental when understanding people.		
3.	I can well imagine the feelings of others.		
4.	I understand why some people don't like.		
5.	When faced with a conflict I see that people are different.		
6.	I tend to realize when I hurt others.		
7.	I know when people around me are disturbed.		
8.	I can feel the pain of others easily even when not expressed.		
9.	I understand the feelings when others disagree with me.		



Intensity of Empathy

Pity

Feeling bad,
discomfort,
sadness

Sympathy

Understand the
suffering of
others. Hope to
relieve the pain or
suffering

Empathy

Caring or 'feeling
into' the other
person's pain and
suffering. Putting
yourself in other
shoes

Compassion

Act towards
relieving the person
from pain and
suffering; actively
provide a solution

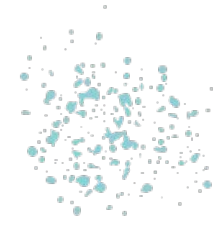


Empathetic Listening



How to recognize emotions experienced by others

- I. recognizing all verbal and nonverbal cues
- II. understanding the meaning of the messages and keeping track of the points of the conversation
- III responding and encouraging communication to continue



Mindful Listening

- nod “mm-hmm”
- repeat back to the speaker something

Research showed that these behaviors fall far short of describing good listening skills.



3,492 participants

in a management training program, were assessed by 360-degree assessment

*the TOP 5% who were perceived as being
the most effective listeners*



Have four characteristics

1. periodically ask questions that promote discovery and insight

asking questions imply that you comprehended it well enough to want additional information.

3. create a cooperative conversation

They do not listen only to identify errors in reasoning or logic

2. made the other person **feel supported**

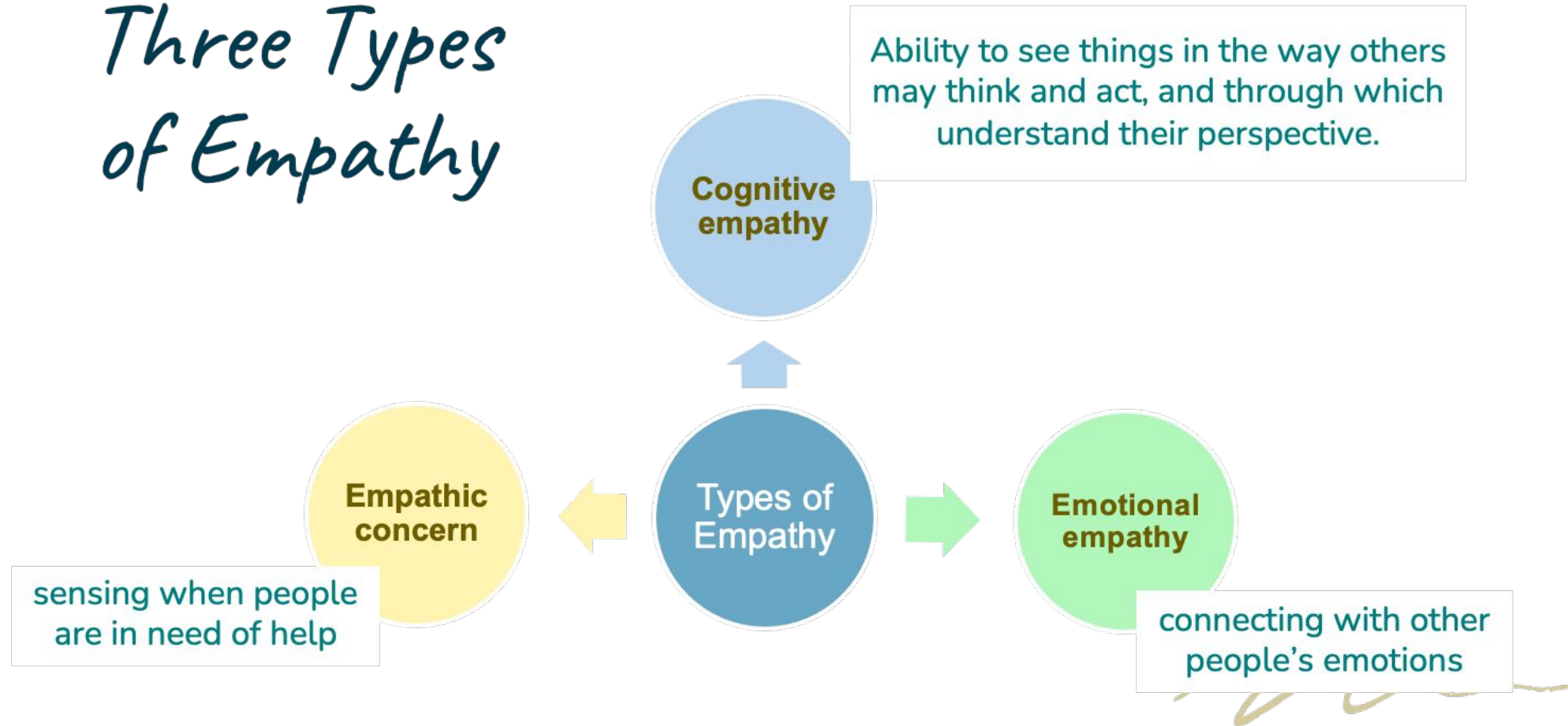
create a safe environment in which issues and differences could be discussed openly.

4. **make suggestions** in a way others would accept

Making suggestions is not itself the problem; it may be the skill with which those suggestions are made.



Three Types of Empathy





Consideration of other people's views



Intensity of Empathy

Pity; Sympathy; Empathy; Compassion



Empathic Listening

Recognize verbal and non-verbal cues



Mindful Listening

Ask questions; Give suggestions;
Cooperative conversation



Cognitive Empathy

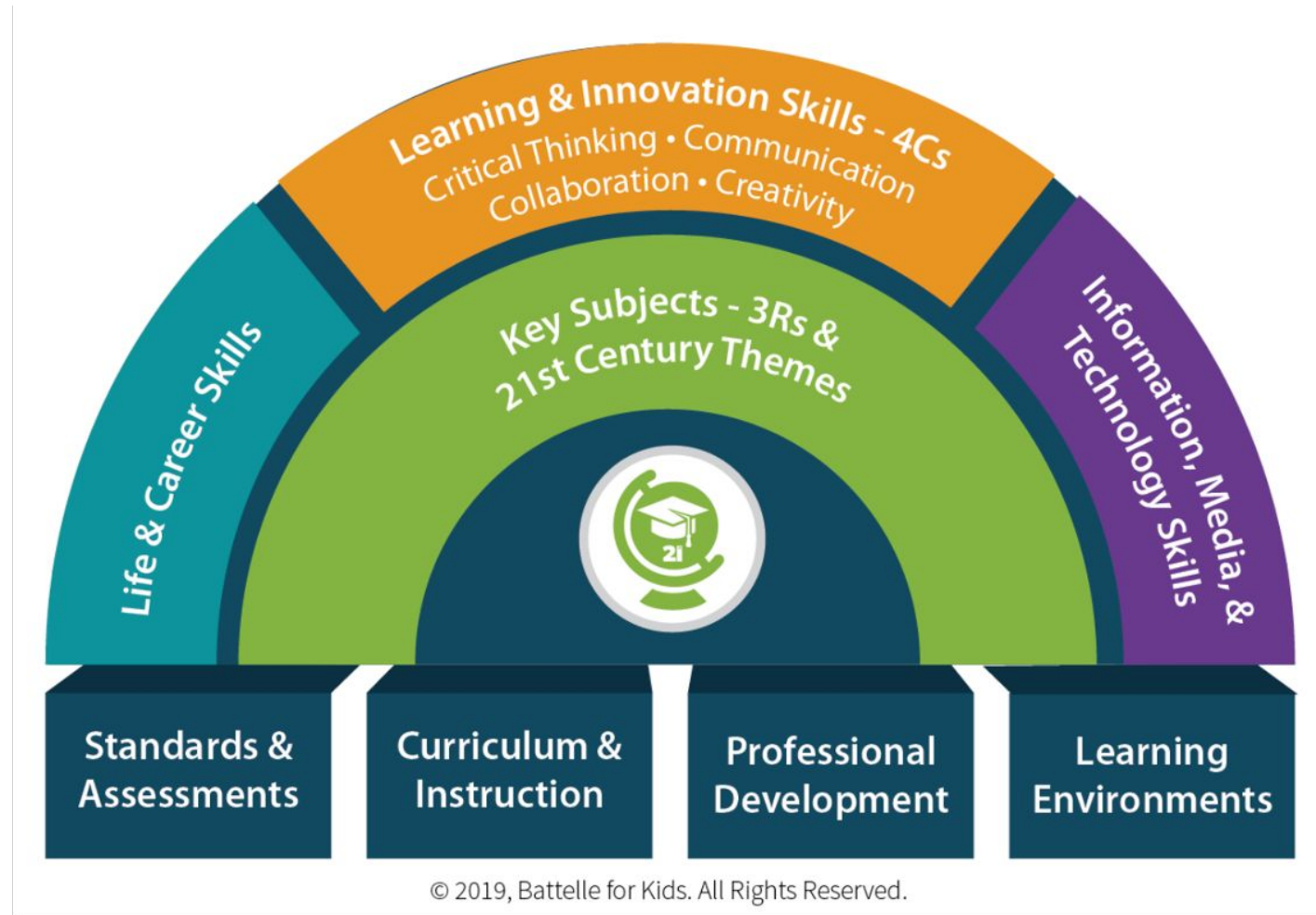
See things in the way others think and act, and
through which understand their perspective



Intrapersonal Skills



Adaptability





- Flexibility and Adaptability
- Initiative and Self-Direction
- Social and Cross-Cultural Skills
- Productivity and Accountability
- Leadership and Responsibility

Career adaptability



Changes

“People are ...more or less prepared to change,
differ in their resources to manage change,
demonstrate more or less change when change is needed,
and as a result become more or less integrated into life roles
over time”

(Savickas & Porfeli, 2012, pp.661–662)



Adapt-Ability





Adaptive Readiness

“...personality trait of flexibility of **willingness to change**”
(Savickas & Porfeli, 2012, p. 662).



Example: Sport Psychology

An athlete is taught to stay positive, to stay calm, to “see yourself as a winner.” Many athletes find success with this positive thinking and imagery.

We can re-train our brain!!





Self-Talk

Preparation

- “It’s not going to be as bad as I think.”
- “It won’t last long and I can cope.”
- “I am getting better and need to re-build my confidence.”
- “If I do get bad feelings, I know they won’t last long and I can cope with them.”
- “It’s better to go than not to go. Worry doesn’t help.”
- “I might enjoy it if I go.”


Cope with

- “Concentrate on what is going on....not how I feel.”
- “Concentrate on what I have to do.”
- “This is just anxiety; it is an unpleasant feeling, but I’ve never been ill.”
- “I know I am going to be OK.”
- “The feelings always pass.”
- “One step at a time.”
- “Anxious feelings are unpleasant, but not harmful or dangerous.”



Different Thinking Styles

All or nothing thinking



Sometimes called 'black and white thinking'

If I'm not perfect I have failed

Either I do it right or not at all

I only got a B on my exam. I always fail. I should not have even tried.




Even though a B is not what I was hoping for, it is still pretty good! Next time I could study more and see if I can do better!!



Different Thinking Styles

Emotional reasoning



Assuming that because we feel a certain way what we think must be true.

I feel embarrassed so I must be an idiot

ฉันไม่ค่อยชอบรูปร่างของตัวเองเท่าไร
คนอื่นก็คงเห็นว่าฉันน่าเกลียดเหมือนกัน



การที่ฉันไม่ชอบรูปร่างตัวเอง ไม่ได้
แปลว่าทุกคนจะคิดเหมือนฉัน เพราะ
ในโลกนี้ก็ไม่มีใคร perfect เหมือนกัน!



Different Thinking Styles

Over-generalising

"everything is always rubbish"

"nothing good ever happens"

Seeing a pattern based upon a single event, or being overly broad in the conclusions we draw

วันนี้เพื่อนในห้องล้อเลียนชื่อฉันเสียงดังมาก ทำไมทุกคนชอบล้อเล่นเหมือนฉัน เป็นตัวตลก




ที่จริง การล้อเลียนไม่ใช่ปัญหาที่ตัวฉัน และเพื่อนคนอื่นก็ยังมีดีกับฉัน ฉันไม่ควรคิดมากกับบางประสบการณ์ที่แย่อย



Different Thinking Styles

Jumping to conclusions



There are two key types of jumping to conclusions:

- **Mind reading**
(imagining we know what others are thinking)
- **Fortune telling**
(predicting the future)

$2 + 2 = 5$

[Fortune telling]

ฉันมีปัญหาเกี่ยวกับทางคณะฯ เทอมหน้า
มหาลัยต้องไล่ฉันออกแน่ๆ



ฉันมีปัญหาเกี่ยวกับทางคณะฯ และทำบางอย่างที่
ไม่ค่อยน่าชื่นชมเท่าไร แต่ทุกคนก็มีสิทธิที่
จะทำผิด อย่งไรก็ตาม คราวหน้าฉันจะ
พยายามไม่ให้เกิดเหตุการณ์แบบนี้อีก



Adapt-Ability (Savickas & Porfeli, 2012)





Adaptability Resources

01

Concern

a sense of hopefulness and
a planful attitude about the future.

02

Control

a sense of self-direction and
personal ownership of the future

03

Curiosity

an inquisitive attitude that
leads to productive career exploration

04

Confidence

an efficacious attitude and
an ability to solve problems



Career Adaptability Resources

Construct		Item (first-order indicators)
Concern	1.	Thinking about what my future will be like
	2.	Realizing that today's choices shape my future
	3.	Preparing for the future
	4.	Becoming aware of the educational and career choices that I must make
	5.	Planning how to achieve my goals
	6.	Concerned about my career
Control	1.	Keeping upbeat
	2.	Making decisions by myself
	3.	Taking responsibility for my actions
	4.	Sticking up for my beliefs
	5.	Counting on myself
	6.	Doing what's right for me
Curiosity	1.	Exploring my surroundings
	2.	Looking for opportunities to grow as a person
	3.	Investigating options before making a choice
	4.	Observing different ways of doing things
	5.	Probing deeply into questions I have
	6.	Becoming curious about new opportunities
Confidence	1.	Performing tasks efficiently
	2.	Taking care to do things well
	3.	Learning new skills
	4.	Working up to my ability
	5.	Overcoming obstacles
	6.	Solving problems

Tolentino, L. R., Sedoglavich, V., Lu, V. N., Garcia, P. R. J. M., & Restubog, S. L. D. (2014). The role of career adaptability in predicting entrepreneurial intentions: A moderated mediation model. *Journal of Vocational Behavior, 85*(3), 403-412.



Concern a sense of hopefulness and a planful attitude about the future.

- Thinking about what my future will be like
- Realizing that today's choices shape my future
- Preparing for the future
- Becoming aware of the educational and career choices that I must make Planning how to achieve my goals
- Concerned about my career

Self-awareness

Think ahead

Resourceful



Control a sense of self-direction and personal ownership of the future

- Keeping upbeat
- Making decisions by myself
- Taking responsibility for my actions
- Sticking up for my beliefs
- Counting on myself
- Doing what's right for me

Self-directed

Responsible

Assertive



Curiosity an inquisitive attitude that leads to productive career exploration

- Exploring my surroundings
- Looking for opportunities to grow as a person
- Investigating options before making a choice
- Observing different ways of doing things
- Probing deeply into questions I have
- Becoming curious about new opportunities

Openminded

Inquiring



Confidence an efficacious attitude and an ability to solve problems

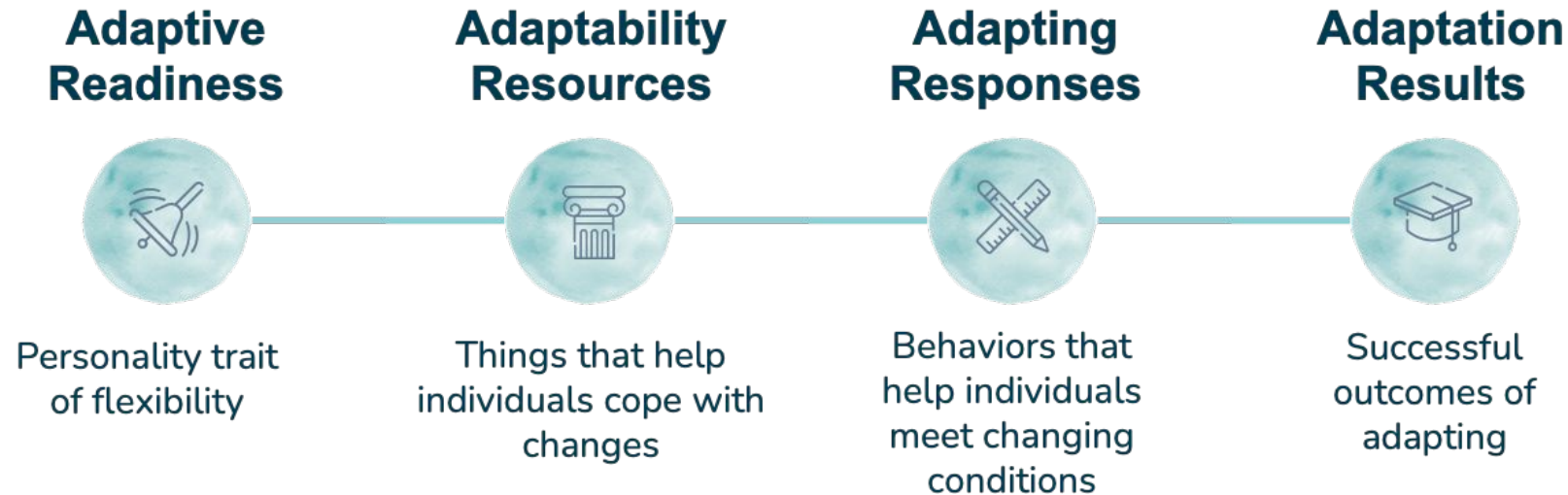
- Performing tasks efficiently
- Taking care to do things well
- Learning new skills
- Working up to my ability
- Overcoming obstacles
- Solving problems

Self-regulated

Persistence



Adapt-Ability



Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of vocational behavior*, 80(3), 661-673.





Mahidol University
Wisdom of the Land

Soft skills and Assessment

Interpersonal and Intrapersonal skills



1. Student **Perceptions of Collaboration Skills** in an Interprofessional Context: *Development and Initial Validation of the Self-Assessed Collaboration Skills Instrument*
2. Collaboration in Student Teaching: Introducing the **Collaboration Self-Assessment Tool**
3. The development of a rubric for **peer assessment** of individual **teamwork skills** in undergraduate midwifery students



1(3) Self-Assessed Collaboration Skills (SACS)

The main characteristics of this measurement are:

1. initially drawn from 43 items of the **Collaboration Skills Assessment Tool rubric**, an educational assessment tool
2. a **self-assessment/self-reported questionnaire** scaled on a 1–7 Likert-type scale from “strongly disagree” to “strongly agree”
3. an **11-item scale** only on learning and work behaviors in a group setting (**interpersonal skills**) covering the collaboration skills domain consisting of three dimensions of collaboration: **information sharing, learning, and team support** to predict performance in an interprofessional team setting
4. probably proper used for **undergraduate health professions students** enrolled in an introduction to interprofessional education (IPE) course for a collaboration-ready health-care workforce in **clinical and nonclinical contexts**



Items

1. I freely share ideas.
2. I do not share resources with others easily. (R)
3. I share information with others easily.
4. It is hard for me to share my ideas with others. (R)
7. I publicly support the team.
9. I publicly support the work of my fellow team members.
10. I consistently know how to gauge my own impact on the group.
11. I am regularly aware of team dynamics.
13. I routinely listen to the opinions of my fellow team members.
14. I regularly acknowledge the efforts of my team members.
15. I consistently support the efforts of others.



The main characteristics of this measurement are:

1. initially drawn from the collaboration instrument called **Collaborative Work Skills for Co-Planning and Co-Teaching** with 10 key collaboration skills:

1.1. Contributions: Sharing ideas and information regarding a specific task

1.2 Kaizen (continuous improvement): Quality of work brought to the table

1.3 Time management: Ensuring that tasks get completed and others do not have to adjust their deadlines or responsibilities

1.4 Representation: Publically supporting the team and its efforts

1.5 Preparedness: Coming to the table ready to work

1.6 Problem solving: Actively looking for solutions to problems

1.7 Group Process: Supporting the group and being responsive to the needs of other team members

1.8 Interactions with Others: Listening to, respecting, acknowledging and supporting the efforts of others

1.9 Role Flexibility: Ability to move between the role of leader and follower

1.10 Reflection: Use of self-reflection to improve collaborative activities



The main characteristics of this measurement are:

2. a **survey (rubric)** scaled on a 1–4 scale from “not at all” to “a great extent” behaviour
3. an 11-item survey on **interpersonal and intrapersonal skills**
 - 3.1 **Interpersonal skills** include contributions, team support, problem solving, team dynamics, and interactions with others.
 - 3.2 **Intrapersonal skills** include motivation/participation, quality of work, time management, preparedness, role flexibility, and reflection.
4. instrument for pairs of teacher candidates/per-service teachers and cooperating teachers/mentors to measure the student-teaching experience.



2(3) Collaboration Self-Assessment Tool (CSAT)

Category	1	2	3	4	Explanation	Score
Contribution	I tend not to share ideas, information or resources.	I share ideas, information and resources upon request.	I usually share ideas, information and resources.	I freely share ideas, information, and resources.		<input type="checkbox"/>
Motivation/ Participation	I tend not to participate or remain engaged when a project moves away from my own immediate interests.	I sometimes make an effort to participate and remain engaged when a project moves away from my own immediate interests.	I often make an effort to participate and remain engaged even when a project moves away from my own immediate interests.	I can be relied on to participate and remain engaged even when a project moves away from my own immediate interests.		<input type="checkbox"/>
Quality of Work	My work reflects very little effort and often needs to be checked and/or redone by others to ensure quality.	My work reflects some effort but occasionally needs to be checked and/or redone by others to ensure quality.	My work reflects a strong effort. I self-monitor to improve the quality of my work.	My work reflects my best efforts. I continuously make small changes to improve the quality of my work.		<input type="checkbox"/>
Time Management	I rarely get things done by the deadline and others often have to adjust deadlines or work responsibilities.	I tend to procrastinate, meaning others may have to adjust deadlines or work responsibilities.	I usually use time well to ensure that things are done so others do not have to adjust deadlines or work responsibilities.	I routinely use time well to ensure things are done on time.		<input type="checkbox"/>
Team Support	I am often critical of the team or the work of fellow group members when I am in other settings.	Occasionally I am critical of the team or the work of fellow group members when I am in other settings.	I usually represent the team and the work of fellow members in a positive manner when I am in other settings.	I represent the team and the work of fellow group members in a positive manner when I am in other settings.		<input type="checkbox"/>
Preparedness	I forget or lose materials needed to work.	I make an effort to bring or find materials needed to work, but often misplace things.	I usually bring needed materials and come ready to work.	I consistently bring needed materials and come ready to work.		<input type="checkbox"/>



2(3) Collaboration Self-Assessment Tool (CSAT)

Problem Solving	I usually do not participate in group problem solving with an open mind. I either tend not to share my thoughts and ideas or I inhibit the contributions of others.	I make an effort to participate in group problem solving with an open mind. I generally share my thoughts and ideas, but I sometimes inhibit the contributions of others.	I usually participate in group problem solving with an open mind, sharing thoughts and ideas without inhibiting the contributions of others.	I consistently participate in group problem solving with an open mind, sharing thoughts and ideas without inhibiting the contributions of others.	<input type="checkbox"/>
Team Dynamics	I do not know how to gauge my own impact on the group, and am generally unaware of team dynamics.	I occasionally know how to gauge my own impact on the group and am somewhat aware of team dynamics.	I often know how to gauge my own impact on the group and am generally aware of team dynamics.	I consistently know how to gauge my own impact on the group and am routinely aware of team dynamics.	<input type="checkbox"/>
Interactions with Others	I rarely listen to, respect, acknowledge, or support the efforts of others. I allow conflict or personal differences to interfere with communication.	I sometimes listen to, respect, acknowledge and support the efforts of others, but at times allow conflict or personal differences to interfere with communication.	I usually listen to, respect, acknowledge, and support the efforts of others. I occasionally allow conflict or personal differences to interfere with communication.	I consistently listen to, respect, acknowledge, and support the efforts of others.	<input type="checkbox"/>
Role Flexibility	I like to either lead or follow but am uncomfortable when functioning outside my perceived role.	I am uncomfortable with role flexibility, but attempt to move outside my perceived role.	I can assume both roles (leader and follower) but am more comfortable in one role than the other.	I can easily move between leader and follower, assuming either role as needed to accomplish the task.	<input type="checkbox"/>
Reflection	I rarely engage in self-reflection after collaborative activities but tend to focus on the behavior of others.	Self-reflection occurs after collaborative activities when prompted or reminded by others.	Self-reflection usually occurs after collaborative activities, but most often when things don't go well.	I consistently use self-reflection after collaborative activities.	<input type="checkbox"/>



CSAT Summary

Total Score:

Maximum score: 44 points

Guide to Scoring:

10–25: Collaboration skills are emerging

26–34: Collaboration skills are developing

35–44: Collaboration skills are established

Personal reflection: *What have you learned about yourself by completing this rubric? What skill area do you want to target for personal improvement? What one thing could you do tomorrow to begin your skill enhancement?*

Interpersonal vs. Intrapersonal skills: *Shaded boxes represent interpersonal skills, clear score boxes represent intrapersonal skills. If there is a significant discrepancy between the two, what could you do to better balance these two factors?*

**Interpersonal
score**

**Intrapersonal
score**



The main characteristics of this measurement are:

1. five domains of teamwork skills: **Fostering a Team Climate, Project Planning, Facilitating Teams, Managing Conflict, and Quality Individual Contribution**
2. used for for **rating yourself and each student** in the team
3. useful for articulating, teaching and assessing teamwork skills for **health professional students**



3(3) TeamUP rubric tool

Green = exceed minimum expectations as a graduate
Yellow = meets minimum expectations to graduate
Amber = does not meet expectations, needs development
Red = needs to change unacceptable behaviour

Project Planning and Management: "The planning skills that enable team members to work in synergy to produce a project plan of the best possible quality"				
How ready is this student to use these skills in professional practice?				
	Green	Yellow	Amber	Red
1. initiating communication to aid team coordination				
2. responding appropriately to communication				
3. participating in meetings				
4. taking minutes or chairing meetings				
5. clarifying/defining group aim/s				
6. planning the project e.g. Gantt chart, meeting schedules, role allocations				
7. Using arguments and evidence in problem solving and decision/making				
<u>Overall Rating for Project Planning and Team Coordination</u>				
<u>Comments:</u>				



3(3) TeamUP rubric tool

Green = exceed minimum expectations as a graduate
Yellow = meets minimum expectations to graduate
Amber = does not meet expectations, needs development
Red = needs to change unacceptable behaviour

Fostering Team Climate: “The emotional and social skills to foster a sense of trust and inclusiveness for each team member”.				
How ready is this student to use these skills in professional practice?	Green	Yellow	Amber	Red
1. behaving politely, including engaging appropriately in small talk				
2. establishing/supporting clear boundaries and expectations of behaviour				
3. treating team members respectfully				
4. ensuring consistency between words, tone, facial expression and body language				
5. expressing positivity and optimism about the team and the project				
6. following up with others when there is concern about their feelings or contribution				
7. speaking positively about team members				
<u>Overall Rating for Fostering Team Climate</u>				
<u>Comments:</u>				



3(3) TeamUP rubric tool

Green = exceed minimum expectations as a graduate
Yellow = meets minimum expectations to graduate
Amber = does not meet expectations, needs development
Red = needs to change unacceptable behaviour

Facilitating the Contributions of Others: “The skills to ensure that the processes of team interaction are effective in progressing the project plan; this means that accurate, relevant information is exchanged, understood and used by all team members”.				
	Green	Yellow	Amber	Red
1. How ready is this student to use these skills in professional practice?				
2. communicating actively and constructively				
3. listening attentively to others without interrupting				
4. encouraging that all perspectives be considered				
5. acknowledging the contributions of others				
6. constructively building upon the contributions of another				
7. synthesizing the contributions of others				
8. noticing when someone is not participating and involving them				
<u>Overall Rating for Facilitating the Contributions of Others</u>				
<u>Comments:</u>				



3(3) TeamUP rubric tool

Green = exceed minimum expectations as a graduate
Yellow = meets minimum expectations to graduate
Amber = does not meet expectations, needs development
Red = needs to change unacceptable behaviour

Managing Conflict: “The personal and interpersonal skills to prevent, recognise, and address conflict in ways that strengthen overall team cohesiveness & effectiveness”.				
How ready is this student to use these skills in professional practice?	Green	Yellow	Amber	Red
1. being appropriately assertive: neither dominating, submissive, nor passive aggressive				
2. minimising unnecessary conflict by addressing the legitimate needs of other team members				
3. asking team members to honour agreed expectations of behaviour				
4. contributing appropriately to healthy debate				
5. recognising and responding to suppressed or indirect conflict				
6. managing conflict in ways that strengthens overall team cohesiveness & effectiveness				
7. addressing destructive conflict directly and constructively				
<u>Overall Rating for Managing Conflict</u>				
<u>Comments:</u>				



3(3) TeamUP rubric tool

Green = exceed minimum expectations as a graduate
Yellow = meets minimum expectations to graduate
Amber = does not meet expectations, needs development
Red = needs to change unacceptable behaviour

Contributing to Team Project: “The skills required to make a high-quality, individual contribution to the team project”.				
How ready is this student to use these skills in professional practice?	Green	Yellow	Amber	Red
1. accepting a fair share of the group work				
2. working skilfully on assigned tasks				
3. using technologies effectively				
4. reporting to team on progress				
5. completing all assigned tasks on time according to project plan				
6. integrating own work with the work of others				
7. giving timely, constructive feedback to each team member in the appropriate format				
8. adhering to academic standards				
<u>Overall Rating for Contributing to Team Project</u>				
<u>Comments:</u>				
Overall Rating for Teamwork Skills				



1. Enhancing students' **communication skills** in the Science classroom through Socioscientific issues
2. Measuring Communication Skills: The STEM **Interpersonal Communication Skills** Assessment Battery



The main characteristics of this measurement are:

1. a framework consisting of **4 dimensions**:
 - 1.1 understanding of others' key ideas
 - 1.2 valuing others' perspectives
 - 1.3 developing active assertions
 - 1.4 developing shared understanding
2. used for Socioscientific Issues (SSI) program: genetic modification for **9th grade students**
3. **five-point Likert scale questionnaire** (1—strongly disagree, 2—disagree, 3—neutral, 4—agree, 5—strongly agree)



Items in Conceptual component 1: understanding others' key ideas

Frequencies of student responses to Communication Skills Questionnaire (CSQ)

<i>Items</i>		<i>SD</i>	<i>D</i>	<i>N</i>	<i>A</i>	<i>SA</i>
1. I summarize and check what the other side intends to say and then argue back to deliver what I want to say.	Pre	4(4.1)	19(19.6)	40(41.2)	27(27.8)	7(7.2)
	post	2(2.1)	7(7.2)	33(34.0)	41(42.3)	14(14.4)
2. I draw my own conclusion from the other side's argument and check whether I understand correctly during the conversation.	Pre	3(3.1)	11(11.3)	43(44.3)	31(32.0)	9(9.3)
	post	3(3.1)	9(9.3)	31(32.0)	32(33.0)	22(22.7)
3. I put myself in the other person's (side's) shoes while leading the conversation.	Pre	0(0)	21(21.6)	41(42.3)	24(24.7)	11(11.3)
	post	0(0)	11(11.3)	34(35.1)	33(34.0)	16(16.5)



Items in Conceptual component 2: valuing others' perspectives

4. In group discussions, I focus more to understand the other person's argument rather than to criticize.	Pre	3(3.1)	11(11.3)	51(52.6)	28(28.9)	4(4.1)
	post	1(1.0)	6(6.2)	40(41.2)	35(36.1)	14(14.4)
5. I stay open to the other person's opinion even if it is different than mine and try to understand.	Pre	2(2.1)	13(13.4)	46(47.4)	28(28.9)	8(8.2)
	post	0(0)	6(6.2)	20(20.6)	46(47.4)	24(24.7)
6. I pay attention to what others are saying, as people could have different views.	Pre	2(2.1)	8(8.2)	35(36.1)	42(43.3)	10(10.3)
	post	6(6.2)	25(25.8)	31(32.0)	25(25.8)	10(10.3)



Items in Conceptual component 3: developing active assertions

7. I take the lead in communication or discussion even though I meet people for the first time.	Pre	10(10.3)	28(28.9)	37(38.1)	18(18.6)	4(4.1)
	post	3(3.1)	7(7.2)	34(35.1)	35(36.1)	18(18.6)
8. I do not hesitate to use facial expressions and gestures beyond verbal expressions to make sure to deliver the message that I intend to say.	Pre	4(4.1)	18(18.6)	33(34.0)	21(21.6)	21(21.6)
	post	1(1.0)	18(18.6)	28(28.9)	32(33.0)	18(18.6)
9. I am prepared by thinking over and organizing what I want to say in advance and take chances (to do so) whenever they arise.	Pre	1(1.0)	4(4.1)	39(40.2)	44(45.4)	9(9.3)
	post	0(0)	10(10.3)	43(44.3)	27(27.8)	17(17.5)



Items in Conceptual component 4: developing shared understanding

10. I understand how the other party is feeling by reading his/her facial expressions or gestures.	Pre	0(0)	10(10.3)	22(22.7)	37(38.1)	28(28.9)
	post	0(0)	10(10.3)	37(38.1)	34(35.1)	16(16.5)
11. I try to think how my friends would feel if I snap at them with frustration.	Pre	2(2.1)	10(10.3)	39(40.2)	31(32.0)	15(15.5)
	post	0(0)	14(14.4)	29(29.9)	37(38.1)	17(17.5)
12. During the conversation, I keep thinking how the other side would understand/interpret my comments.	Pre	3(3.1)	14(14.4)	35(36.1)	35(36.1)	10(10.3)
	post	0(0)	10(10.3)	35(36.1)	35(36.1)	16(16.5)



The main characteristics of this measurement are:

1. **three sub-instruments:**

1.1 Interpersonal Communication Knowledge Assessment (20 items)

1.2 Interpersonal Communication Coping Self-Efficacy Assessment (12 items)

1.3 Interpersonal Communication Skills Assessment (5 items)

2. used for **women doctoral students** to learn, practice, and improve critical interpersonal communication skills through the advisor-advisee relationship contexts, particularly in the fields of **engineering, computer sciences, mathematics, and the physical sciences**



Communication Knowledge Assessment

The Knowledge assessment is a self-report measure of students' knowledge of interpersonal communication skills arrayed on a 6-point Likert scale ranging from 1 (5 strongly disagree) to 6 (5 strongly agree) with no midpoint.

Item	Factor loading	<i>M</i>	<i>SD</i>
1. Check the accuracy of my interpretation	.56	4.65	.74
2. Plan a well-crafted message	.70	4.85	.88
3. Express my views in a way that would improve the likelihood of getting my desired outcome	.68	4.83	.82
4. Use past experiences as a way to measure the feedback received	.57	4.87	.80
5. Present myself in the manner in which I want to be perceived	.60	4.75	.88
6. Behave in a manner that facilitates good interpersonal communication	.59	5.01	.75
7. Identify the objective of my message	.59	5.06	.71
8. Check to ensure that I have understood the speaker's point of view	.55	4.95	.82
9. Identify the desired outcome(s) of my communication interaction	.63	4.95	.74
10. Focus my attention on the feedback being received	.62	4.76	.80
11. Assess if the feedback received fits with my perception	.65	4.65	.84
12. Ask for clarification when I am unsure about the feedback received	.51	4.90	.94
13. Use the feedback received as a learning tool	.60	4.97	.77
14. Acknowledge feedback while expressing my views confidently	.64	4.68	.83
15. Interpret feedback I have received	.64	4.75	.75
16. Express my personal needs while still conveying professionalism	.69	4.59	.99
17. Stay focused on my needs while expressing myself	.74	4.50	.88
18. Be consistent in what I am saying and how am saying it	.67	4.65	.88
19. Consider my intentions for communicating a certain message	.63	4.91	.73
20. Recognize the main underlying point of a speaker's message	.60	4.85	.83

Note. Respondents were instructed to indicate their level of agreement with each item using the following prompt: "When communicating with others, I know how to..." Item response options range from (1) strongly disagree to (6) strongly agree, with no midpoint.



The Coping Self-Efficacy assessment measures a student’s self-reported confidence in using her communication skills despite interpersonal obstacles arrayed on a Likert scale from 1 (5 no confidence) to 10 (5 complete confidence) with no midpoint.

Communication Coping Self-Efficacy Assessment

Item	Factor loading	<i>M</i>	<i>SD</i>
1. Pay attention to the main point of a speaker’s message even if s/he is being confrontational	.54	7.36	1.52
2. Communicate my discomfort in answering someone’s question even if I feel pressure to do so	.66	6.50	1.93
3. Communicate my expectations even if the other person perceives me as unreasonable	.69	6.92	1.93
4. Acknowledge the feedback received and advance the discussion even if the speaker wants to dwell on the feedback	.69	7.31	1.63
5. Share my perspective with colleagues even if they attempt to put my ideas down	.77	6.80	1.97
6. Confidently discuss my ideas even if I recently received negative feedback from this person	.80	6.50	1.90
7. Articulate a clear reason for my request even if the listener appears disinterested in meeting my needs	.76	7.39	1.77
8. Bring attention to my needs even if I feel put down	.85	6.54	1.90
9. Challenge feedback that doesn’t fit even if I feel intimidated by the other person	.77	6.52	2.05
10. Bring attention to my needs even if I expect an unwanted response	.78	6.91	1.85
11. Stand up for myself even if the other person seems intimidating	.82	7.09	2.00
12. Maintain consistency in what I am saying and how I am saying it even if I am having a difficult conversation	.70	7.21	2.00

Note. The instructions for this scale are “Please indicate your level of confidence in your ability to do each of the following successfully.” Item response options range from 1 (no confidence) to 10 (complete confidence), with no midpoint.



Skills Assessment Scenarios

Scenario	Description
A	<p>Suzanne sent her advisor, Dr. Sanju, a draft of her dissertation proposal several weeks ago and has yet to receive feedback on her work. If she does not get some feedback soon, she will have to postpone her scheduled dissertation defense and possibly graduate the following semester. She has decided to drop by his office to communicate the importance of receiving his feedback. For each of the following opening expressions, indicate how likely it is to assist Suzanne in getting his feedback promptly.</p>
B	<p>Elisabeth met with her advisor, Dr. Sampson, a week ago and received some feedback about her academic performance over the last year. At the time, he stated that “you made excellent progress in your classes and in your statistics course in particular. However, when compared to your colleagues, I think that your research abilities are subpar.” She responded by stating that she would take some time to think about his feedback and discuss it further in their next weekly meeting. For each of the following statements that Elisabeth could potentially make to Dr. Sampson, indicate how likely it is to assist her in getting clarification from her advisor about his feedback in this week’s weekly meeting.</p>
C	<p>Dr. Phillips, Sandra’s advisor, asked her to meet with him regarding the method she used to analyze the data from their research project. Sandra feels belittled by his feedback and inwardly disagrees with him. For each of the following actions, indicate how likely it is to assist Sandra in being perceived as professional while receiving Dr. Phillips’ feedback.</p>
D	<p>Since Jane began working with Dr. Samuel, she often feels a bit reluctant to express her opinions in their team meetings. She is not sure if her opinions are viewed favorably. Jane has decided to meet with Dr. Samuel individually to discuss how she could improve on her contribution to the group. For each of the following ways Jane could address this with Dr. Samuel, indicate how likely it is to assist her in getting his recommendations on ways she could improve.</p>

The Skills assessment measures a student’s ability to actually apply interpersonal communication skills. This instrument measures a higher level of learning than the declarative type of knowledge measured by the Knowledge assessment. It is expert-determined correct responses to scenarios and arrayed on a 6-point Likert scale ranging from 1 (5 very unlikely) to 6 (5 very likely) with no midpoint.



Assessment Scenario Response Options

Scenario	Item
A	<ol style="list-style-type: none">1. “You know that I need to defend my dissertation before I can graduate yet still you haven’t sent me any feedback on the last draft of my proposal.”^a2. “I understand that you have competing demands on your time. I really value your opinions, though, and would appreciate it if you could offer some feedback on my dissertation.”^b3. “I know that you’ve been busy, but I am worried about graduating on time because you still haven’t given me any feedback on my dissertation.”^b
B	<ol style="list-style-type: none">1. “Can you please tell me more about the qualities that you are looking for in a researcher?”^b2. “Thank you for sharing your thoughts about my research capabilities. However, I am not sure I am in agreement with your feedback. Please offer some examples of why you think that way?”3. “I hear your feedback Dr. Sampson, I am not sure I agree though.”^a
C	<ol style="list-style-type: none">1. “Interrupt him and state your opinion when you disagree with his feedback.”^b2. “Ask him to elaborate when you are unclear about specific parts of his feedback.”^b3. “Nonverbally display your dissatisfaction with his feedback.”^a
D	<ol style="list-style-type: none">1. “I would like to discuss with you how I can better contribute to our research team meetings.”^b2. “I would really appreciate it if my views were at least acknowledged in our team meetings. How can I achieve that?”^a3. “I feel like you hardly acknowledge me in the team meetings, and I think that’s unfair.”^a

^aItem to be used in scoring the Interpersonal Communication Skills Assessment.

^bInterpersonal Communication Skills Assessment distractor (item is not used in scoring this assessment)



1. Measuring Empathy in the 21st Century: Development of an **Empathy Index** Rooted in Social Cognitive Neuroscience and Social Justice
2. The **Toronto Empathy Questionnaire**: Scale Development and Initial Validation of a Factor- Analytic Solution to Multiple Empathy Measures



1(2) Empathy Assessment Index (EAI)

The main characteristics of this measurement are:

1. an empathy **self-report instrument** rooted in social cognitive neuroscience, developmental psychology, and social work's commitment to social justice
2. **6 components** on 5 Likert-type scale on which 1 = never, 2 = rarely, 3 = sometimes, 4 = frequently, and 5 = always
 - 2.1 Empathetic Attitudes
 - 2.2 Affective Response (happy)
 - 2.3 Perspective Taking
 - 2.4 Affective Response (sad)
 - 2.5 Perspective Taking and Affective Response
 - 2.6 Emotion Regulation
3. used for **undergraduate and graduate students**, mostly majoring in social work and nursing



1(2) Empathy Assessment Index (EAI)

Component and Item

Empathetic Attitudes

- Government should be expected to help individuals.
- Government should support our well-being.
- People who are poor deserve social assistance.
- People are worthy of being helped by government.

Affective Response (happy)

- When a friend is happy, I become happy.
- When I am with a happy person, I feel happy myself.
- Watching a happy movie makes me happy.

Perspective Taking

- I am open to listen to the points of view of others.
- I consider other people's point of view in discussions.
- I like to view both sides of an issue.
- It is easy for me to see other people's point of view.

A 5 Likert-type scale on which 1 = never, 2 = rarely, 3 = sometimes, 4 = frequently, and 5 = always

Affective Response (sad)

- When a friend is sad, I become sad.
- When I am with a sad person, I feel sad myself.
- When I see a friend crying, I feel like crying.

Perspective Taking and Affective Response

- I feel what another person is feeling even when I don't know the person.
- I can feel the characters in a well-written book.
- Hearing laughter makes me smile.

Emotion Regulation

- Friends view me as a moody person. (reverse scored)



The main characteristics of this measurement are:

1. **self-report measures** of empathy
2. 16 items on 4 **Likert scale** on which Never = 0; Rarely = 1; Sometimes = 2; Often = 3; Always = 4
3. consisting 6 components:
 - 3.1 perception of an emotional state in another that stimulates the same emotion in oneself (Items 1 and 4)
 - 3.2 emotion comprehension in others (Item 8)
 - 3.3 emotional states in others (Items 2, 7, 10, 12, and 15)
 - 3.4 sympathetic physiological arousal (Items 3, 6, 9, and 11)
 - 3.5 altruism (Items 5, 14, and 16)
 - 3.6 prosocial helping behaviors (Item 13)



APPENDIX

Toronto Empathy Questionnaire Instructions

Below is a list of statements. Please read each statement *carefully* and rate how frequently you feel or act in the manner described. Circle your answer on the response form. There are no right or wrong answers or trick questions. Please answer each question as honestly as you can.

1. When someone else is feeling excited, I tend to get excited too
2. Other people's misfortunes do not disturb me a great deal
3. It upsets me to see someone being treated disrespectfully
4. I remain unaffected when someone close to me is happy
5. I enjoy making other people feel better
6. I have tender, concerned feelings for people less fortunate than me
7. When a friend starts to talk about his/her problems, I try to steer the conversation towards something else
8. I can tell when others are sad even when they do not say anything
9. I find that I am "in tune" with other people's moods

Scoring Item responses are scored according to the following scale for positively worded Items 1, 3, 5, 6, 8, 9, 13, 16. Never = 0; Rarely = 1; Sometimes = 2; Often = 3; Always = 4. The following negatively worded items are reverse scored: 2, 4, 7, 10, 11, 12, 14, 15. Scores are summed to derive total for the Toronto Empathy Questionnaire.

10. I do not feel sympathy for people who cause their own serious illnesses
11. I become irritated when someone cries
12. I am not really interested in how other people feel
13. I get a strong urge to help when I see someone who is upset
14. When I see someone being treated unfairly, I do not feel very much pity for them
15. I find it silly for people to cry out of happiness
16. When I see someone being taken advantage of, I feel kind of protective towards him/her



Mahidol University
Wisdom of the Land

THANK YOU