

# Self-regulated Learning:

Activity theory as a lens to understand  
the strategies that **promote** this skill  
among **pre-clinical** medical students



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# Background:

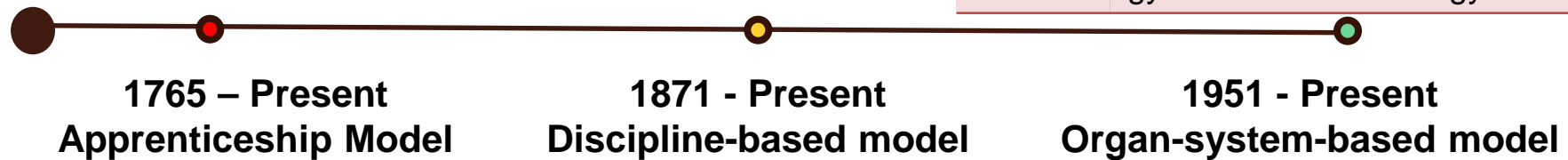


The only constant in life is  
change

~ Heraclitus

AZ QUOTES

# Background:



Hecker, K., & Violato, C. (2009). Medical school curricula: Do curricular approaches affect competence in medicine? *Fam Med*, 41(6), 420-426.

# Background:

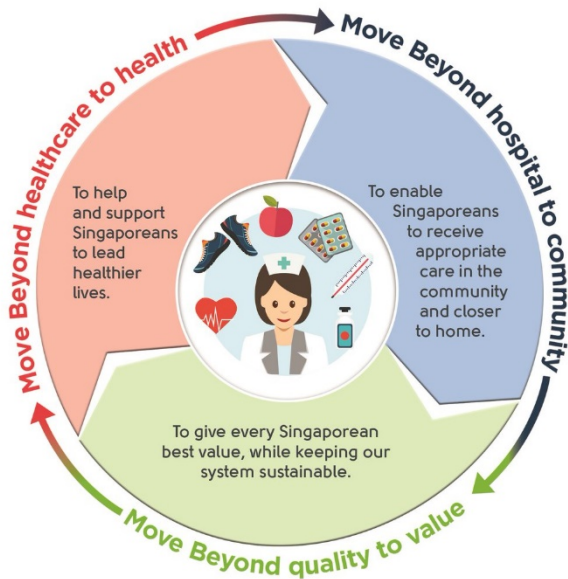
5-Year Medical Curriculum				
<b>Phase I</b> Normal Structure and Function	<b>Phase II</b> Abnormal Structure and Function	<b>Phase III</b> Core Clinical Practice	<b>Phase IV</b> Advanced and Specialty Clinical Practice	<b>Phase V</b> Student Internship Program
<b>Longitudinal Tracks:</b> <ul style="list-style-type: none"> <li>• Patient-Based Program;</li> <li>• Health Ethics, Law and Professionalism;</li> <li>• Medicine and Society;</li> <li>• Information Literacy, Critical Thinking, Evidence-Based Medicine, and Research Methodology</li> </ul>				

## NUS Medical Curriculum

Dujeepa D. S., Ooi S, Yeo SP & Hooi SC. (2015). Medical education in Singapore, *Medical Teacher*, 37(8), 707-713, DOI: [10.3109/0142159X.2015.1009026](https://doi.org/10.3109/0142159X.2015.1009026)

# Background: Why Change?

## THREE KEY SHIFTS FOR A FUTURE-READY HEALTHCARE SYSTEM



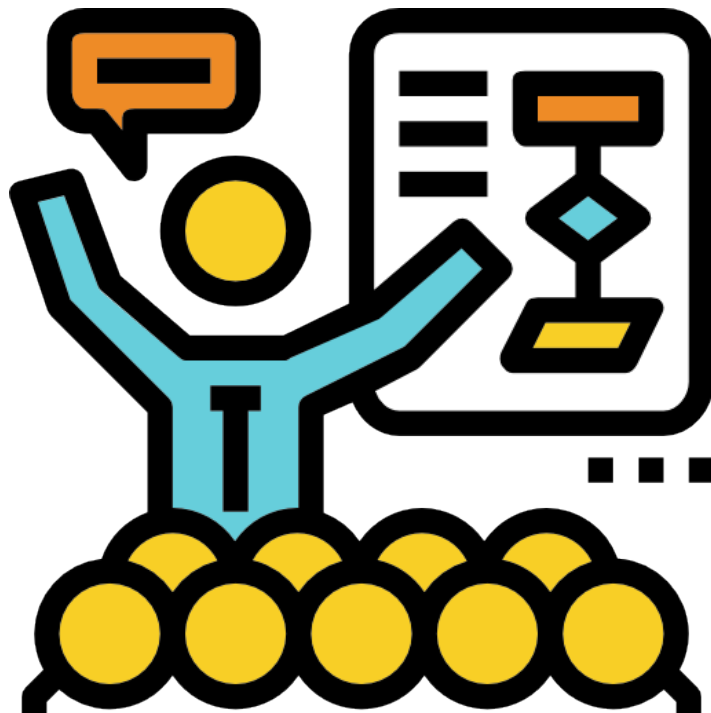
## Influx of Information

## Millennials



# Background:

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**Delivery method has  
to change ...**

**BUT  
HAVE WE  
CHANGED?**

# Background:

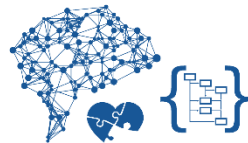
## Top 10 skills

### in 2020

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

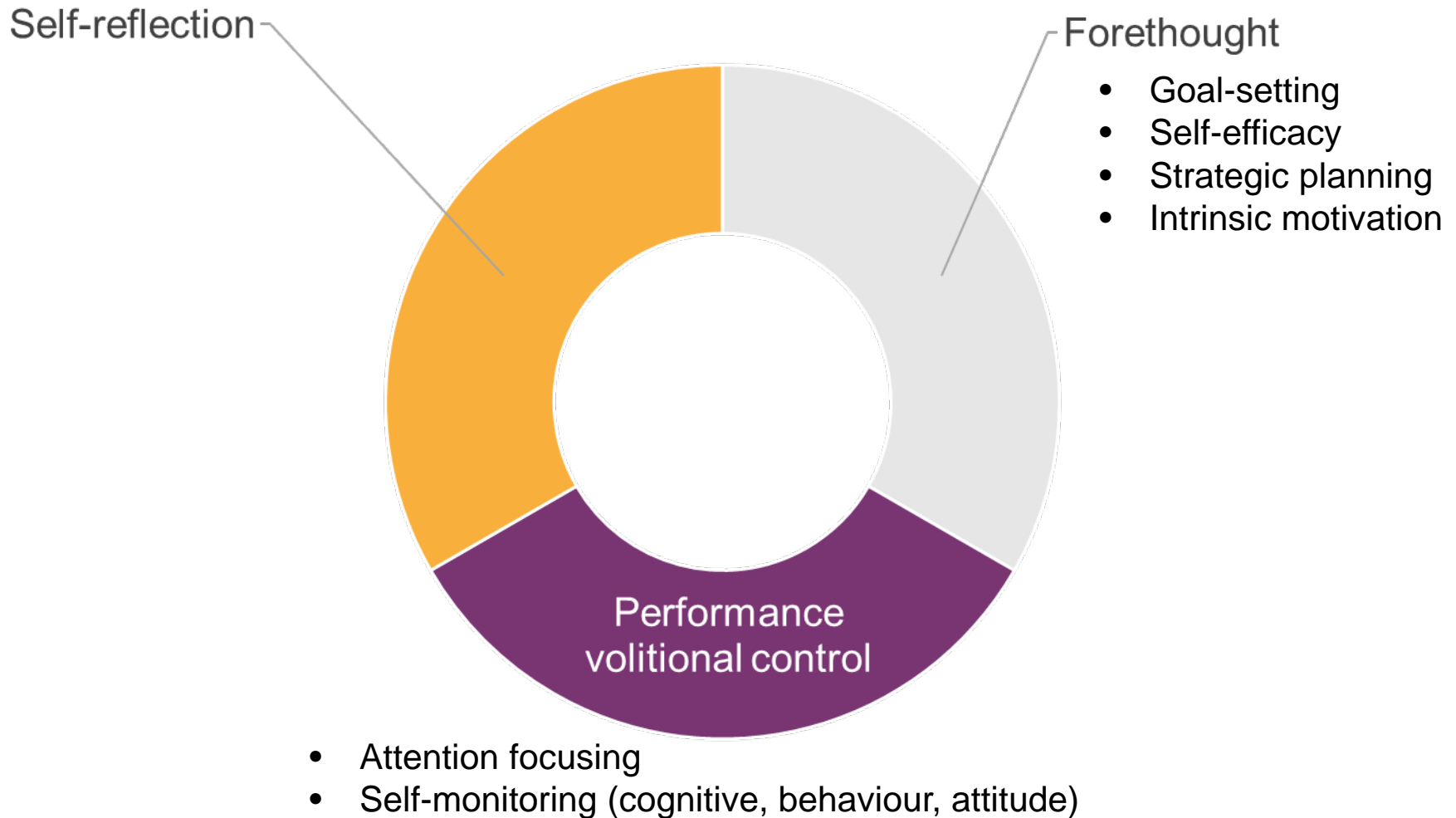
### in 2015

1. Complex Problem Solving
2. Coordinating with Others
3. People Management
4. Critical Thinking
5. Negotiation
6. Quality Control
7. Service Orientation
8. Judgment and Decision Making
9. Active Listening
10. Creativity



Source: Future of Jobs Report, World Economic Forum

# Background: SRL



Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In *Handbook of self-regulation* (pp. 451-502).



# Problem Statement

Review indicates that higher levels of SRL is beneficial for medical students due to its positive correlation with academic achievement and clinical skills [1-5]

However, lots of emphasis in SRL research is in clinical years because this skill is prominent due to its context. [6,7]

# Problem Statement

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Nevertheless, development of SRL is a continuous process and self-regulated learners are not always successful when left to develop their own strategies [8-11]

We cannot assume that students will develop SRL naturally when they enter clinical years.

Although we know that promoting this skill should start from day 1 in medical school, little do we know about this especially in pre-clinical year.

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# Aim

To explore current teaching and learning method that support SRL

## Significance of the Study



Medical  
Education



Teacher



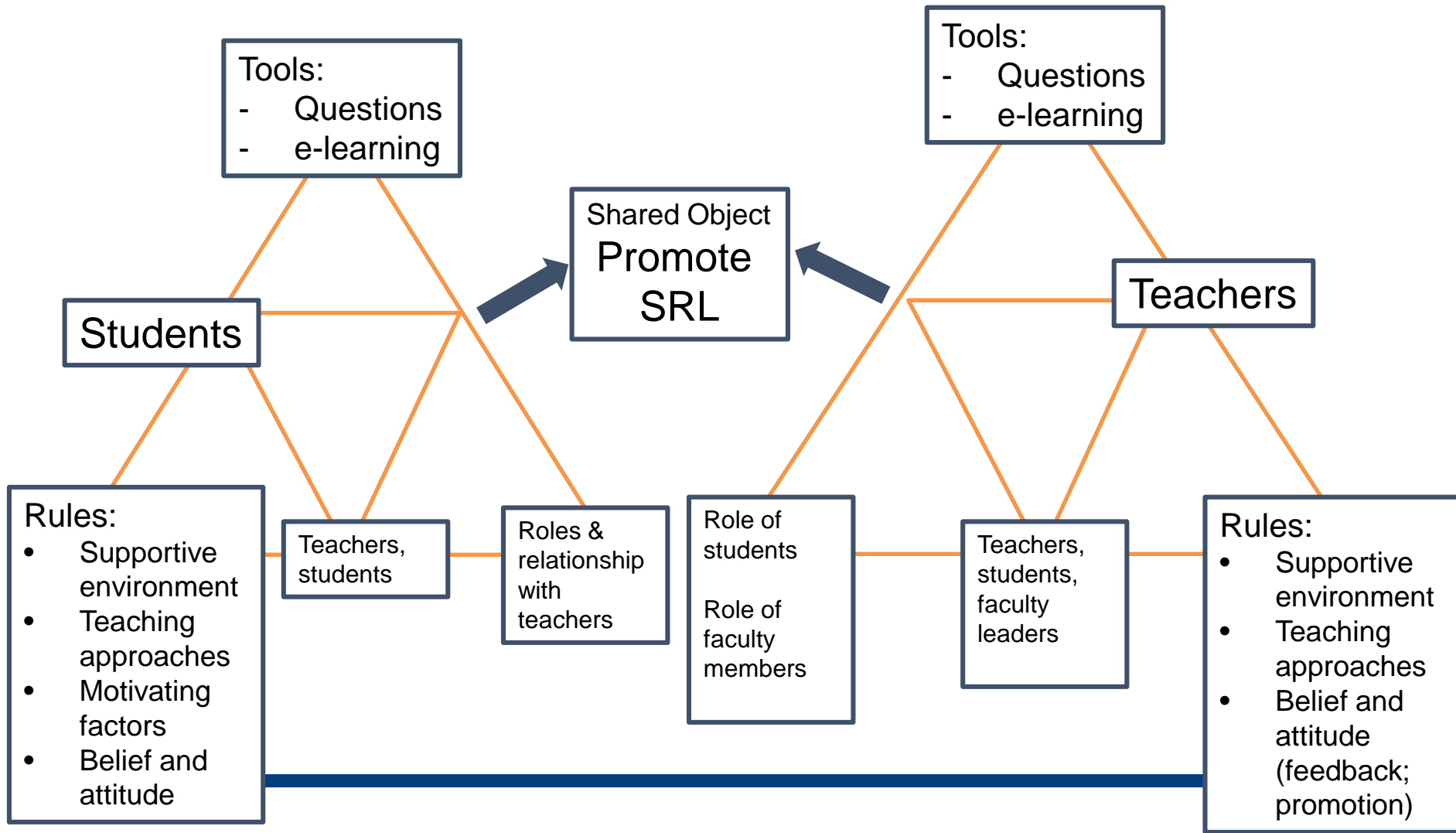
Student

- ❑ A qualitative approach in collecting data.
- ❑ Focus group discussions were conducted to seek students' views on the teaching-learning strategies in pre-clinical years and how they develop their learning approaches.
- ❑ Structured interviews were conducted to collect teachers' feedback on how the teaching-learning activities support the development of self-regulated learning in students.

- ❑ A total of 4 focus groups were conducted among the Year 1 & Year 2 students.
- ❑ A total of 10 structured interviews were conducted with teachers who has been teaching Year 1 and Year 2 students for more than 5 years.
- ❑ Data collected was analysed using thematic analysis approach.

Overlapping Themes	Student's Theme	Teacher's Theme
<ol style="list-style-type: none"><li>Teaching Approaches<ul style="list-style-type: none"><li><input type="checkbox"/> Moving away from controlling teaching approach</li><li><input type="checkbox"/> Thinking/ Reflective approach</li><li><input type="checkbox"/> e-Learning</li></ul></li><li>Supportive Teaching Environment</li><li>Belief and Attitude</li></ol>	<ol style="list-style-type: none"><li>Motivating Factors<ul style="list-style-type: none"><li><input type="checkbox"/> Process (Autonomy, Self-paced, Evoke curiosity, Given opportunities to apply)</li><li><input type="checkbox"/> Lecturer (Relationship)</li><li><input type="checkbox"/> Materials (semi-guidance)</li></ul></li></ol>	<ol style="list-style-type: none"><li>Students as the driver</li></ol>

# Discussion



# Conclusions

- ❑ Both elucidated that teaching approaches, environment and belief and attitude play an important role in promoting SRL.
- ❑ Although the themes are similar, emphasis are slightly different for students and teachers using the lens of Activity Theory
- ❑ Students felt that the motivating factors are crucial in promoting SRL while teachers are dependent on how they are being evaluated and promoted



# Conclusions

- We learn that faculty development for the staff is essential.
- Re-look at how student feedback is being used as a tool of evaluation and criteria for promotion

# References

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Thank  
you