Assessing and Providing Evidence of Generic Skills

4 May 2016

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creativity

Understanding

responsible

Tell Me Please

critical thinking

Time-management

List the 5 generic skills that you think are the most important for you.

Team-working

networking

communication

adaptability

leadership

persuasion

Self-reflection

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Soft Skills

Global Competencies

Generic Skills

Transferable Skills

Key Skills

Employable Skills

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Definition of Generic Skills

Skills, knowledge and attributes, beyond disciplinary knowledge, which are applicable in a range of contexts

(Barrie, 2006; Chan, 2012)

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Generic Skills

- Sensitivity
- Creativity
- Leadership
- Project management
- Intercultural understanding
- Writing
- Brainstorming
- Listening
- Lifelong Learning
- Computer Literacy
- Ethical
- Language
- Professional
- Positive Attitude
- Common Sense
- Adaptability
- Openness etc…

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Sharing #1

Hands Up Exercise

Just a quick show of hand,

How many of you think generic skills are important?

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Sharing #2

Hands Up Exercise

How many of you think they provide an opportunity for students to develop generic skills in their course(s)?

A. I do

B. Sometimes – accidentally not by design

C. What is generic skills and what is that to do with me?

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Sharing #3

Hands Up Exercise

How many of you assess students on their generic skills in their course(s)?

A. I do

B. Sometimes – accidentally

C. What is generic skills and what is that to do with me?

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Formative Assessment

Criteria Referencing:

Anyone who participates in a discussion, asks question, or provides a comment etc will receive a chip*.

If you receive more than 10 chips for participation, you will receive a prize.

*Cecilia has the final discretion

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Generic Skills Are Vital Today

Generic employability skills are important because jobs today require flexibility, initiative and the ability to undertake many different tasks.

Evidenced in

- Pellegrino, J.W., & Hilton, M. (Eds). (2012). Education for life and work: Developing transferable knowledge and skills in the 21st century. Washington, D.C.: National Academies Press.
- The national education goals report. 1991. Washington, D.C. : National Education Goals Panel.
- The Dearing Report in the UK (1997), the Council of the European Union (2001),
- The Australian Council for Educational Research (2001)
- Hong Kong University Grants Committee (2005)

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Emotional Quotient (E.Q.)

Peter Salovey the psychologist (President of Yale) who invented the term E.Q. explained

"I.Q. gets you hired, but it is E.Q. that gets you promoted."

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HKU University Educational Aims (EAs)

To enable our students to develop the capabilities in

EA1. Pursuit of academic/professional excellence, critical intellectual inquiry and life-long learning

EA2.Tackling novel situations and ill-defined problems

EA3. Critical self-reflection and greater understanding of others, upholding personal and professional ethics

EA4. Intercultural understanding and global citizenship

EA5. Communication and collaboration

EA6. Leadership and advocacy for the improvement of the human condition

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Challenges of Developing Generic Skills

- Students' perception
- Teachers' perception
- Unknown and unaware of the learning outcomes related to generic skills
- Mismatch of learning activities, assessments and learning outcomes
- Not discipline specific
- Unaware of the rationale and students' prior experiences
- Teachers often do not have the skills to teach them
- Provide evidence of student learning

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Challenges of Developing and Assessing Generic Skills

Lack of coherence curriculum design framework particularly regards to student engagement and transferability

"the product of accident rather than design"

- Drummond et al, 1998

"A considerable amount of generic skills assessment, therefore, is going unreported in those instances where those skills are being inferred but not recorded, reported or certified"

- Clayton et al, 2003

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External Measures

- HEAR
- AHELO
- CLA
- PISA

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Graduation Heat Map

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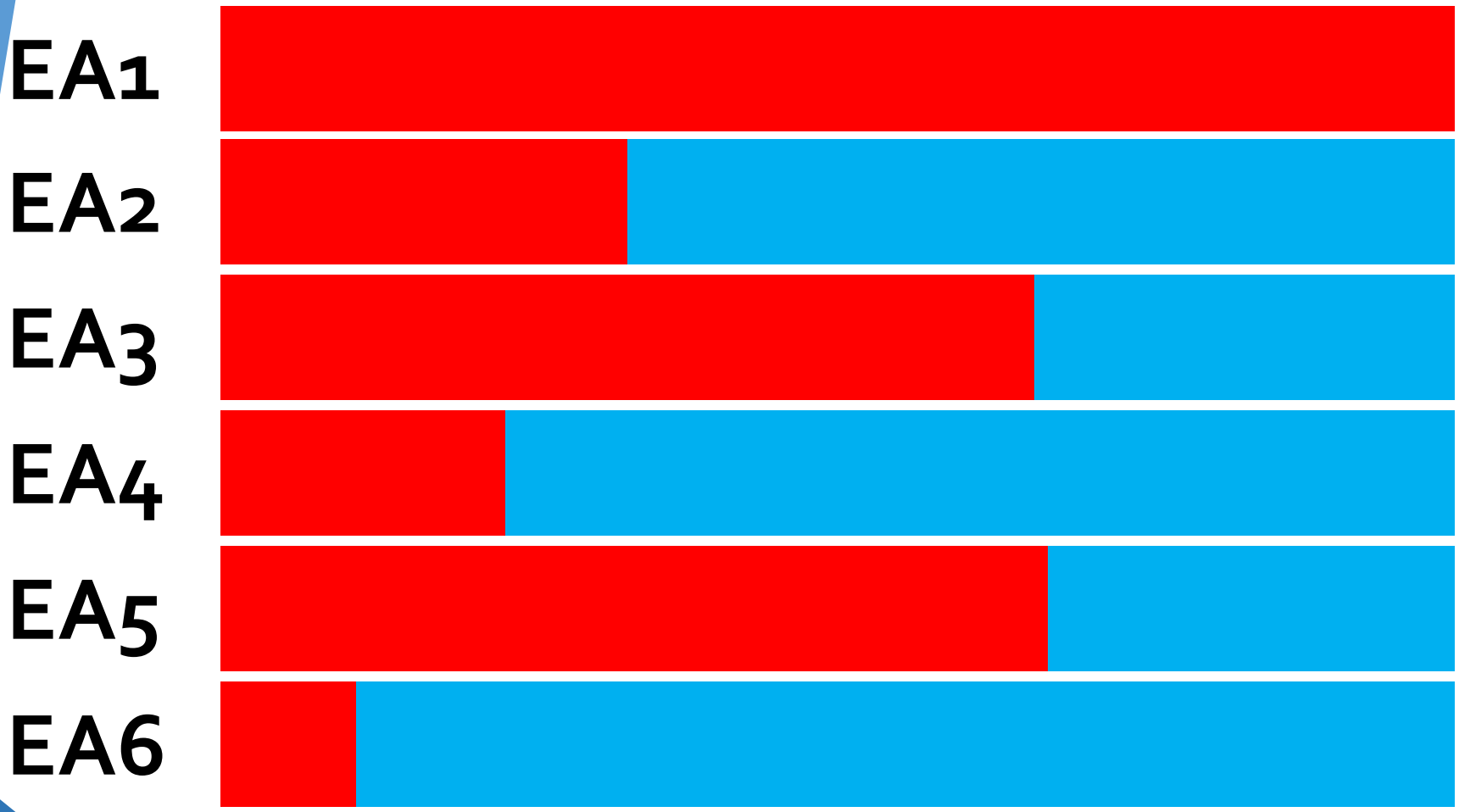
From the Major - PLOs



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Attaining PLOs

Second key issue: how to capture student attainment of PLOs?

Current answer is the PLO AP: take either one senior course (preferably the capstone) or a small set of senior courses and develop marking rubrics to assess student achievement of the PLOs

Mapping done by programme team

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Attaining PLOs revisited (2)

Conceivably, programme teams could also develop a simple hierarchy

Base case: students completing the programme have attained the PLOs

Supplementary case: students completing the programme above a specified GPA have attained the PLOs+

(Perhaps too complicated)

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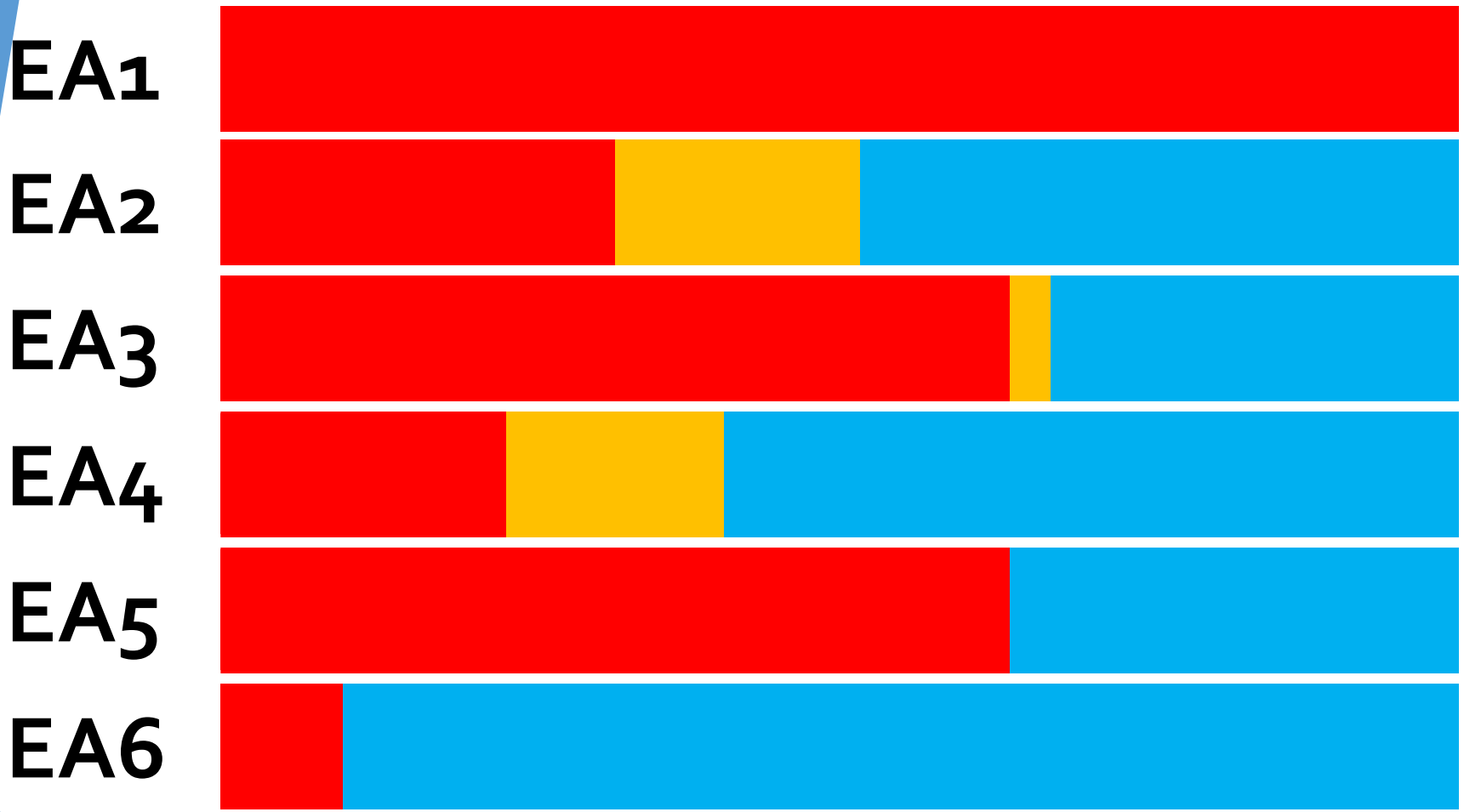
PLOs and PLOs+ (GPA: 3.6)



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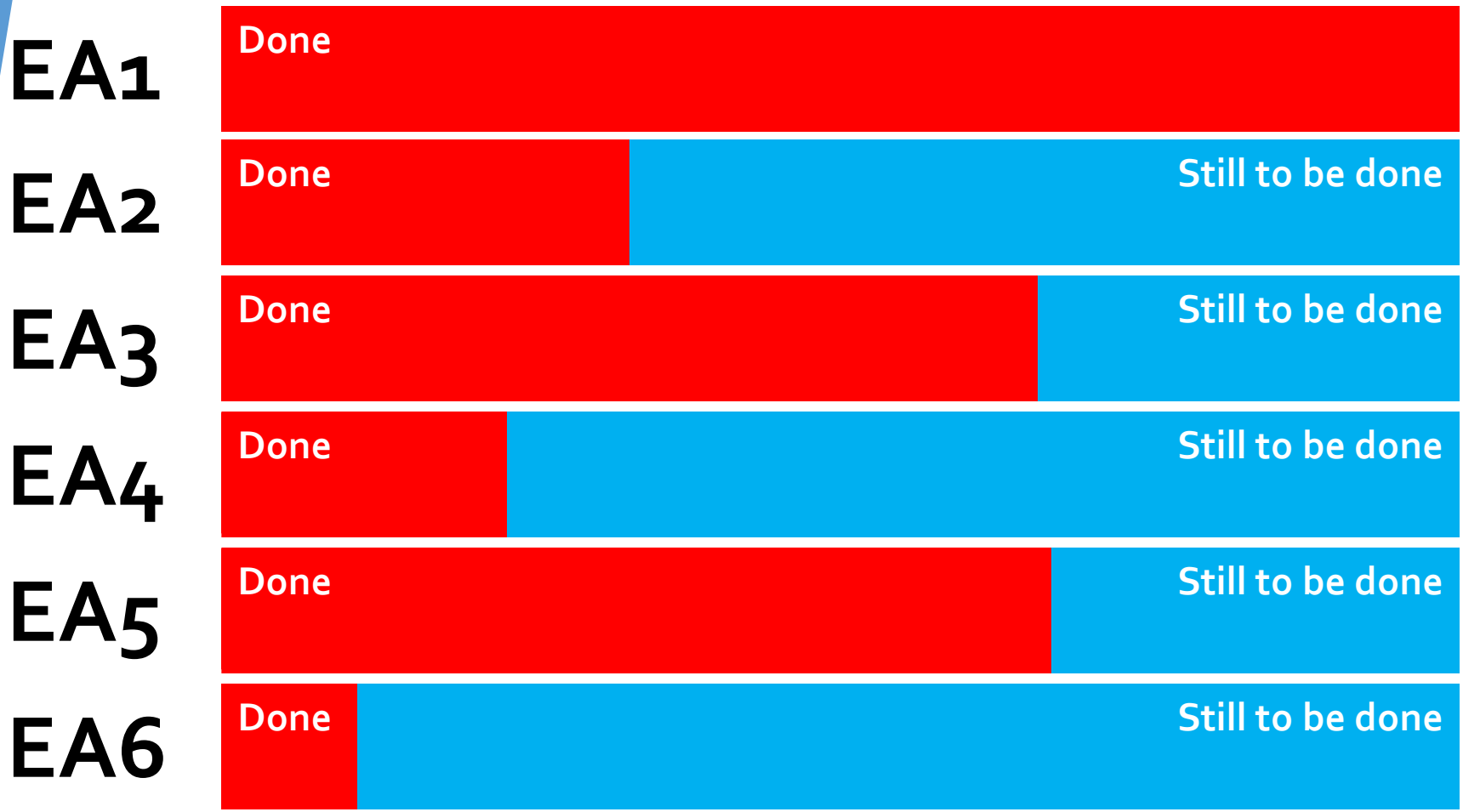
PLOs as subset of EAs



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Extra-curricular Activities

And how do we capture the ECA? Non-credit?

Students need to be responsible, but we need to create the opportunity for students to develop the skills and advices.

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Research Question

To investigate students' perceptions of generic. This includes their rationale, awareness, prior experiences, expectations from the university and their experiences in relation to learning outcomes, learning and teaching activities, assessment and engagement on the acquisition of generic skills acquired during their undergraduate programme.

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GRF: Research Context & Methodology

Research Context	3 higher education institutions in Hong Kong
Nature of study	Quantitative study, Student-centered Focus group interviews
Timeline	August to October 2013
Sample	1232 Engineering students (928 Male, 279 Female) 1st Year 506 Engineering students Final Year
Instrument	Transferable skills questionnaire for engineering students (Chan, Zhao, Luk, in review)
Procedure	The questionnaire was administered either outside classrooms or during lectures.

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Generic Skills Questionnaire

- ***Section 1***: Background information (e.g. gender, year of study, origin)
- ***Section 2***: Importance measure (1=very unimportant, 5=very important), Competency measure (1=very poor, 5=very good)
- ***Section 3***: 5 statements assessing students' attitude toward transferable skills

Scale	No. of items
Critical Thinking	3
Academic & Problem-solving Skills	8
Interpersonal Skills	8
Leadership Skills	3
Self-management	4
Information & Communication Literacy	4
Community & Citizenship Knowledge	3
Professional Effectiveness	4

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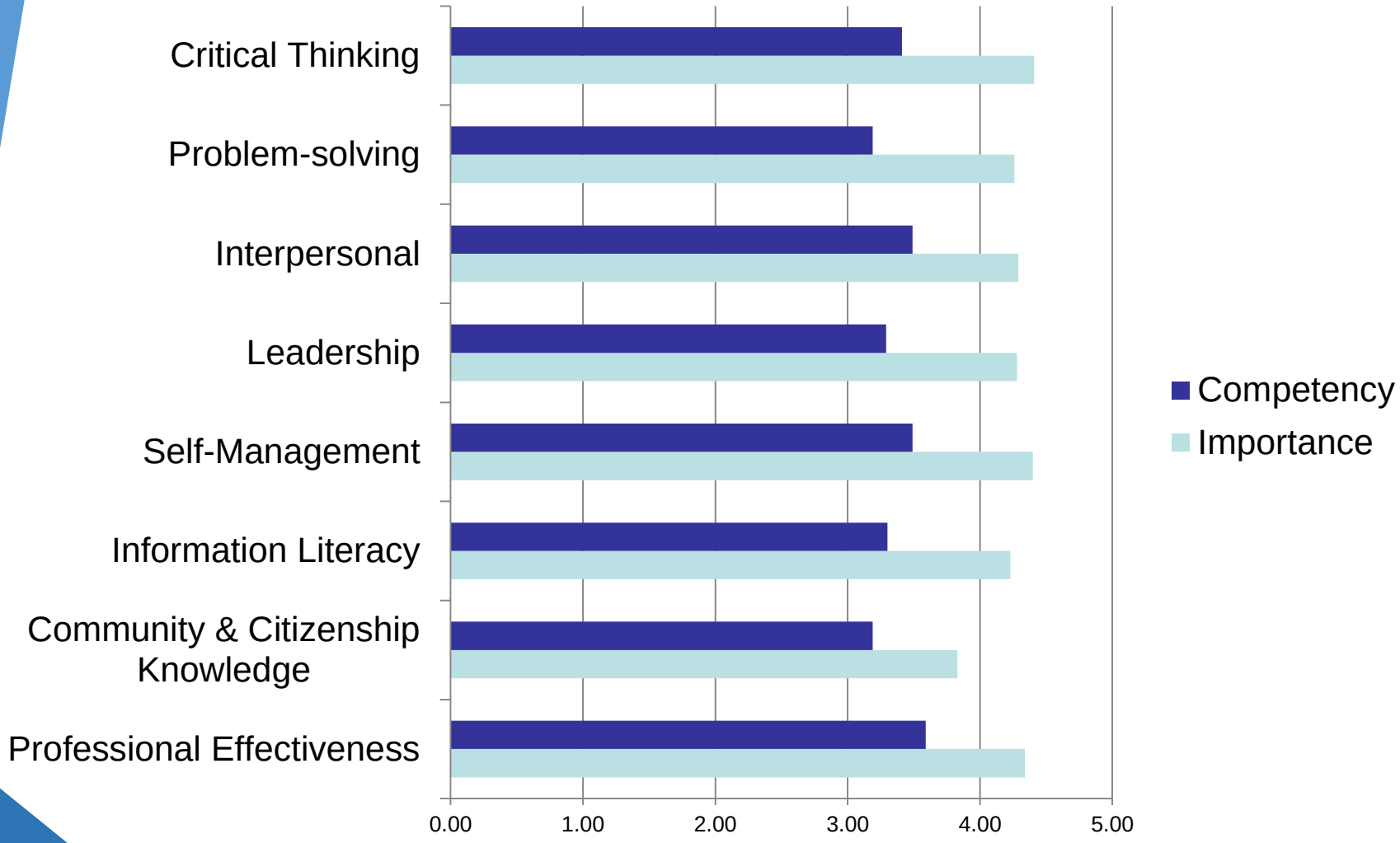
Main finding 1
Perceived Importance Vs Competence



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Main finding 2
General Attitude towards Transferable Skills

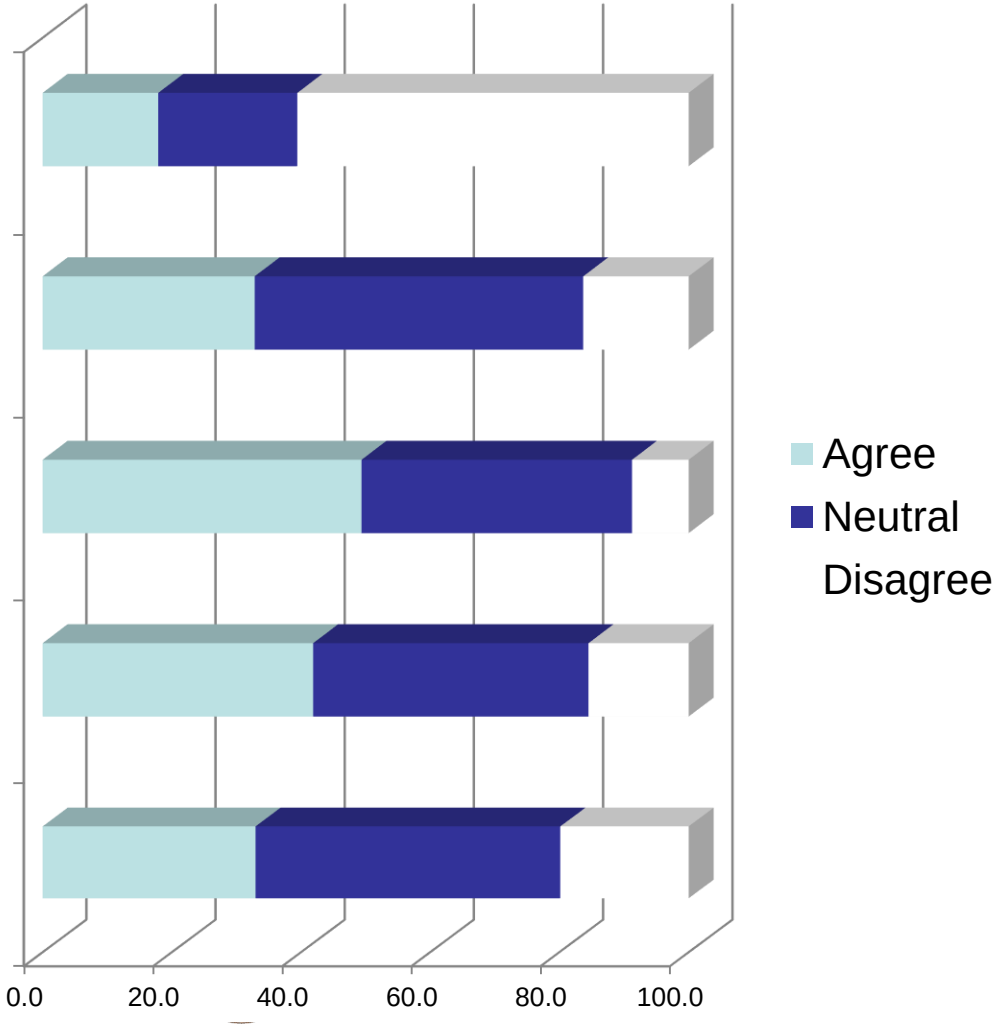
1. Learning transferable skills is irrelevant.

2. Transferable skills are more important than technical academic knowledge.

3. Transferable skills are better developed through extra-curricular activities than in the 4-year engineering curriculum.

4. We should be assessed and given credits for developing transferable skills.

5. We should receive certificate for developing transferable skills.



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A Tag Cloud Visualization on the preferred method of developing generic skills from Student's Perspectives

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Conclusion

- Students generally rated the importance of the transferable skills more highly than their ability in those skills.
  - Coincide with findings from previous studies (e.g. Direito, Pereira, & Duarte, 2012).
- Although majority of the students believe that transferable skills are relevant, most of them are neutral towards whether these skills are more important than technical academic knowledge.
  - Students seems to be aware that both the development of academic knowledge and the development of transferable skills are important.

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Discussion & Implications

- A significant proportion of students believe that they should be assessed and given credits for the development of transferable skills.
  - However, there is often a lack of academic staff with the expertise in the assessment of transferable skills as well as a lack of clear assessment guideline for transferable skills development at the university.

- Students see extra-curricular activities (and NOT the academic curriculum) as the main source or opportunity for transferable skills development.
  - Although students perceive that generic skills are better developed through extra-curricular activities, it seems that the perception of the term 'extra-curricular' includes a broad range of activities as evidenced by the open-ended responses received. To clearly present these preferred activities, a tag cloud was generated (see tag cloud figure).

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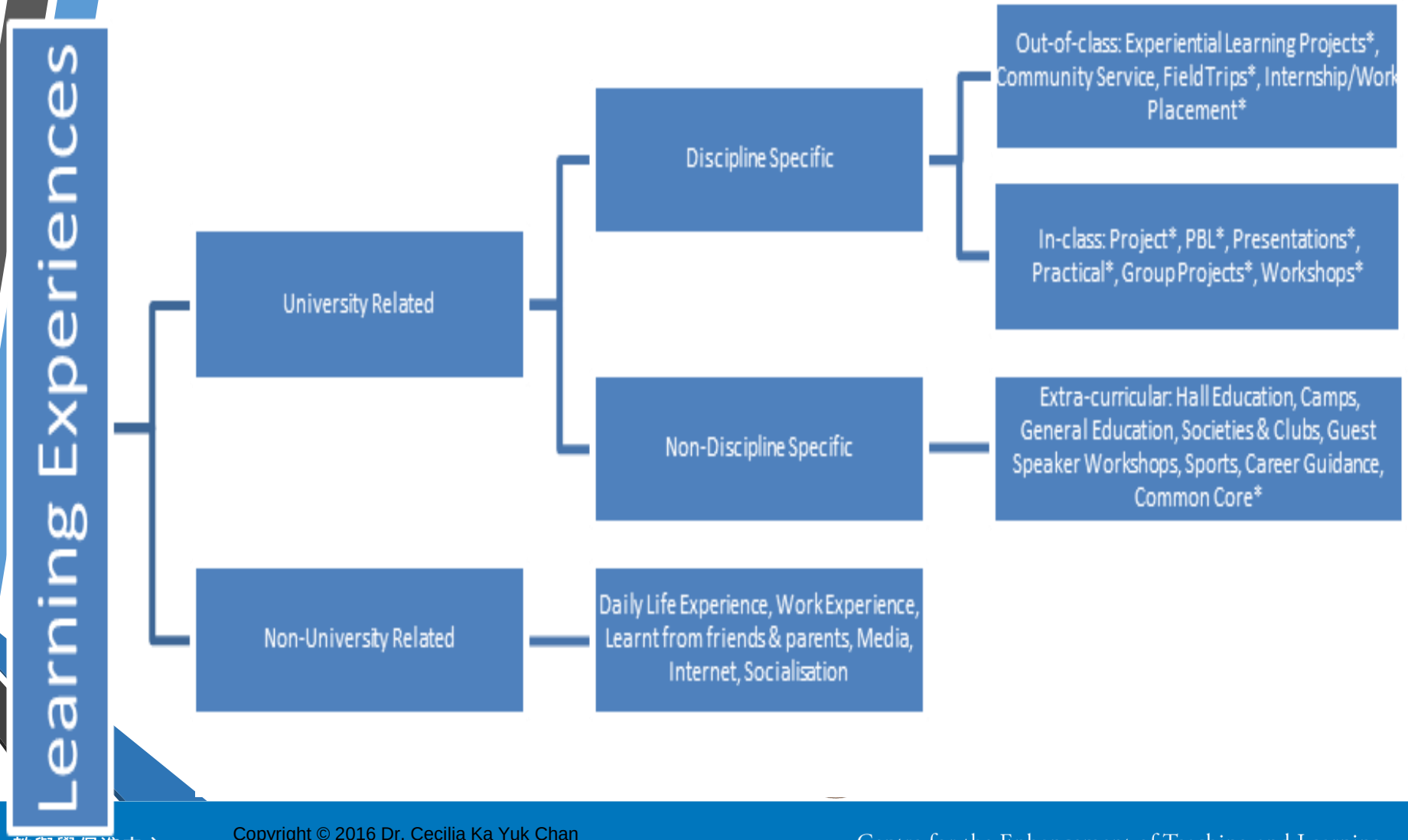
A Classification of the types of learning activities (in-class, out-of-class and extra-curricular) for the development of generic skills



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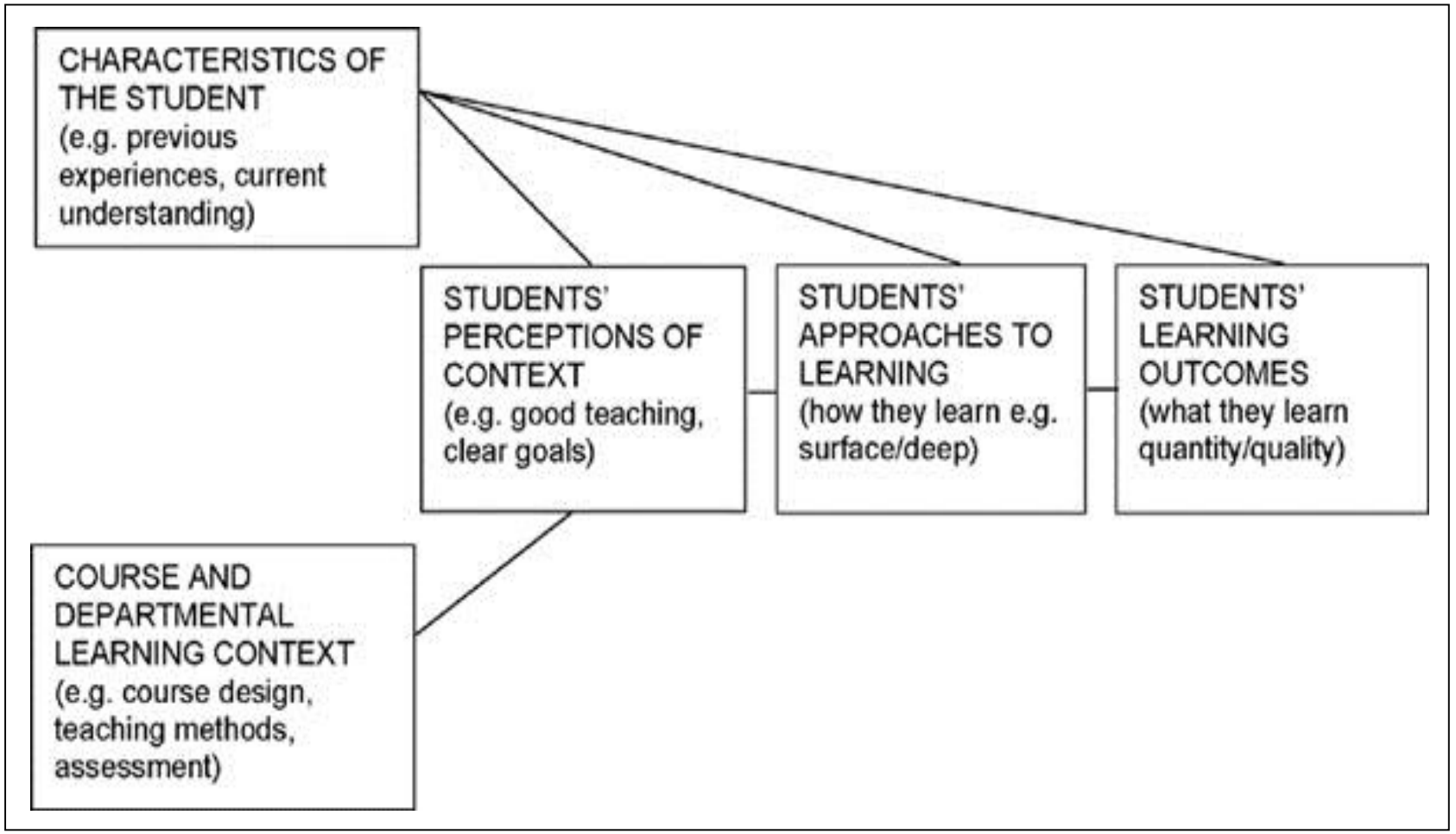
A model of student approaches to learning (Prosser & Trigwell, 1999)



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Academic Knowledge	Vs	Generic Skills
Learn	**Vs**	Develop

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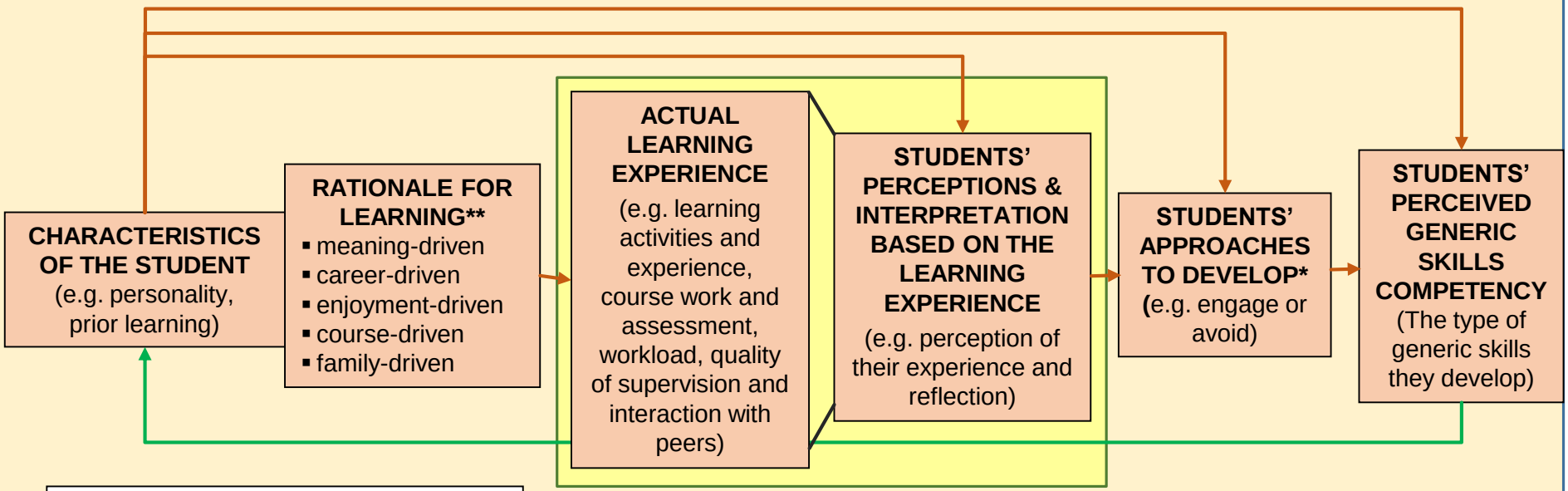
Students' Approaches to Generic Skills Development Framework (Chan and Luk's Model)



Assumption is that students who are going through this framework, are already willing to participate the learning activity.

**A Classification of the types of learning activities (in-class, out-of-class and extra-curricular) is shown in figure 1

*A learner is considered as an "engager" if he/she takes the opportunity of engaging in an activity; the development of generic skills is welcomed and practiced; student is considered as an "avoider" if they avoid the activities, thus there is little room for generic skills development.

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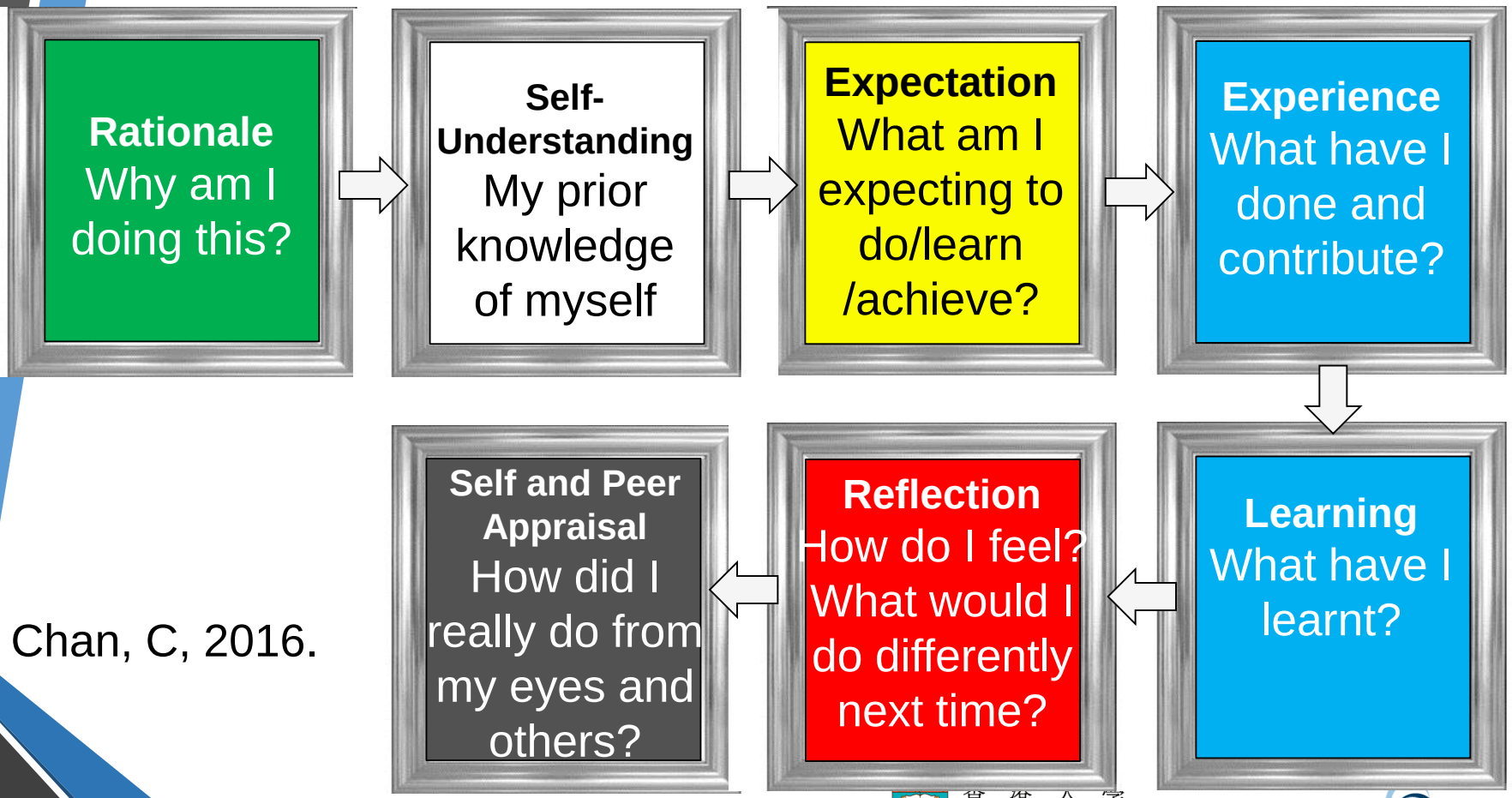
Chain of Mirrors – the Metacognitive Learning Process



Chan, C, 2016.

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Assess or Not to Assess

Is there any other ways we can provide some kind of evidence for students' extra-curricular activities or non-credit based?

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Our Upcoming research

Preferences and the effectiveness of **pedagogies and assessment** used for developing generic skills

Investigation of **teachers'** perception of generic skills

Disciplinary difference in the perception of transferable skills

Direct Evidence of generic skills

Certification of generic skills

Investigating the **learning ingredients** of in-class, out-of-class and extra-curricular activities for generic skills

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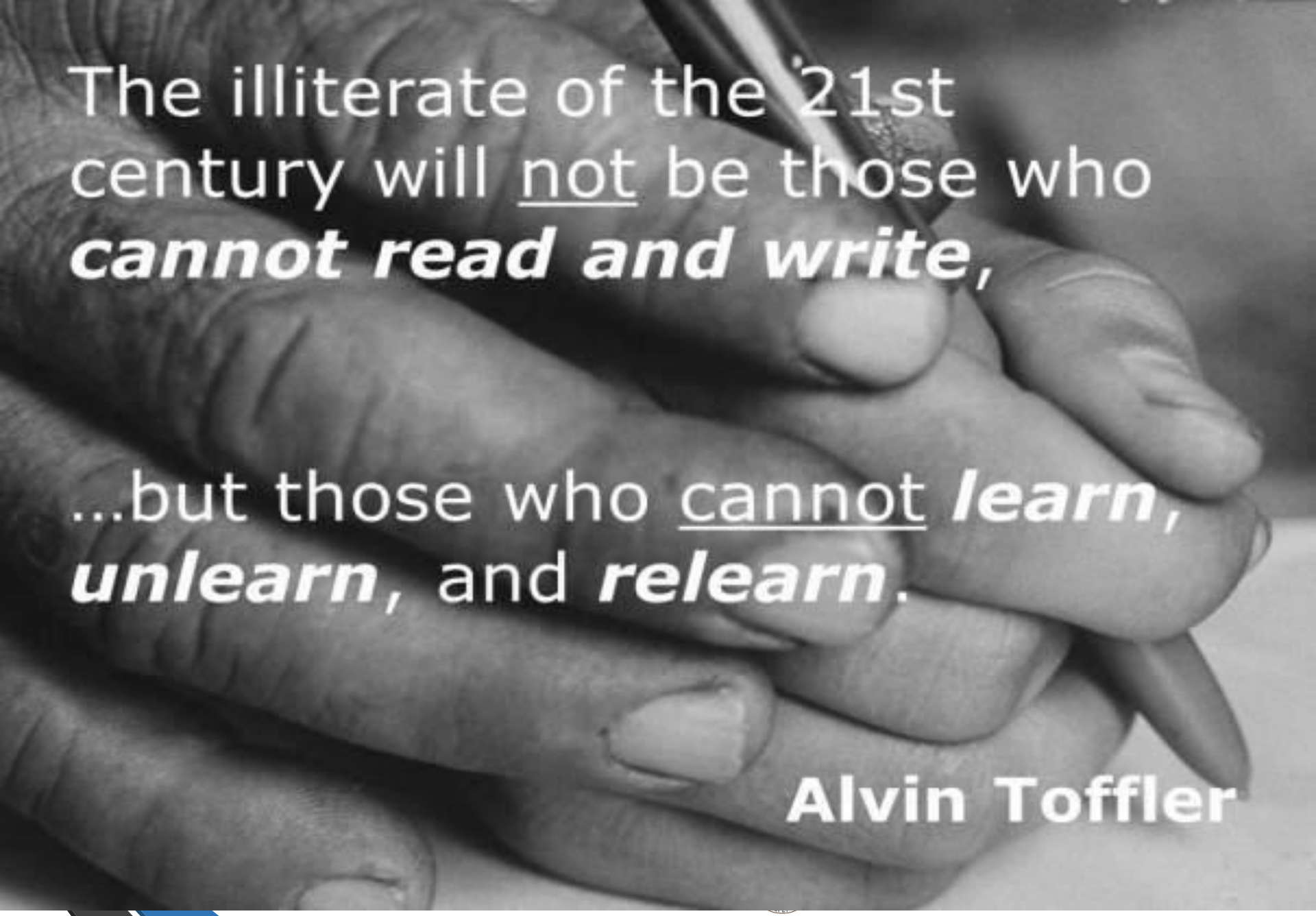

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Thank You

Thank you for your participation!!!

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