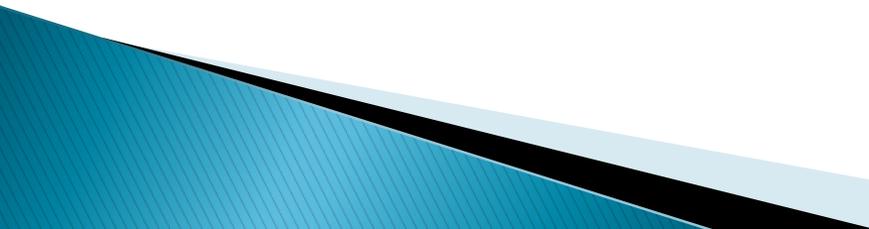


Flexible Student Alignment for Self-Directed Learning and 21 Century Skills Development

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Overview

- ▶ Introduction: Skills for 4th Industrial Revolution
 - ▶ Student Learning: a holistic view
 - ▶ Self-Directed Learning and FSA
 - ▶ RAPAL Methodology: Key Elements
 - ▶ Research and practical evidence
- 

Skills for the 4th Industrial Revolution (4IR)

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

Vietnam: An economy in transition

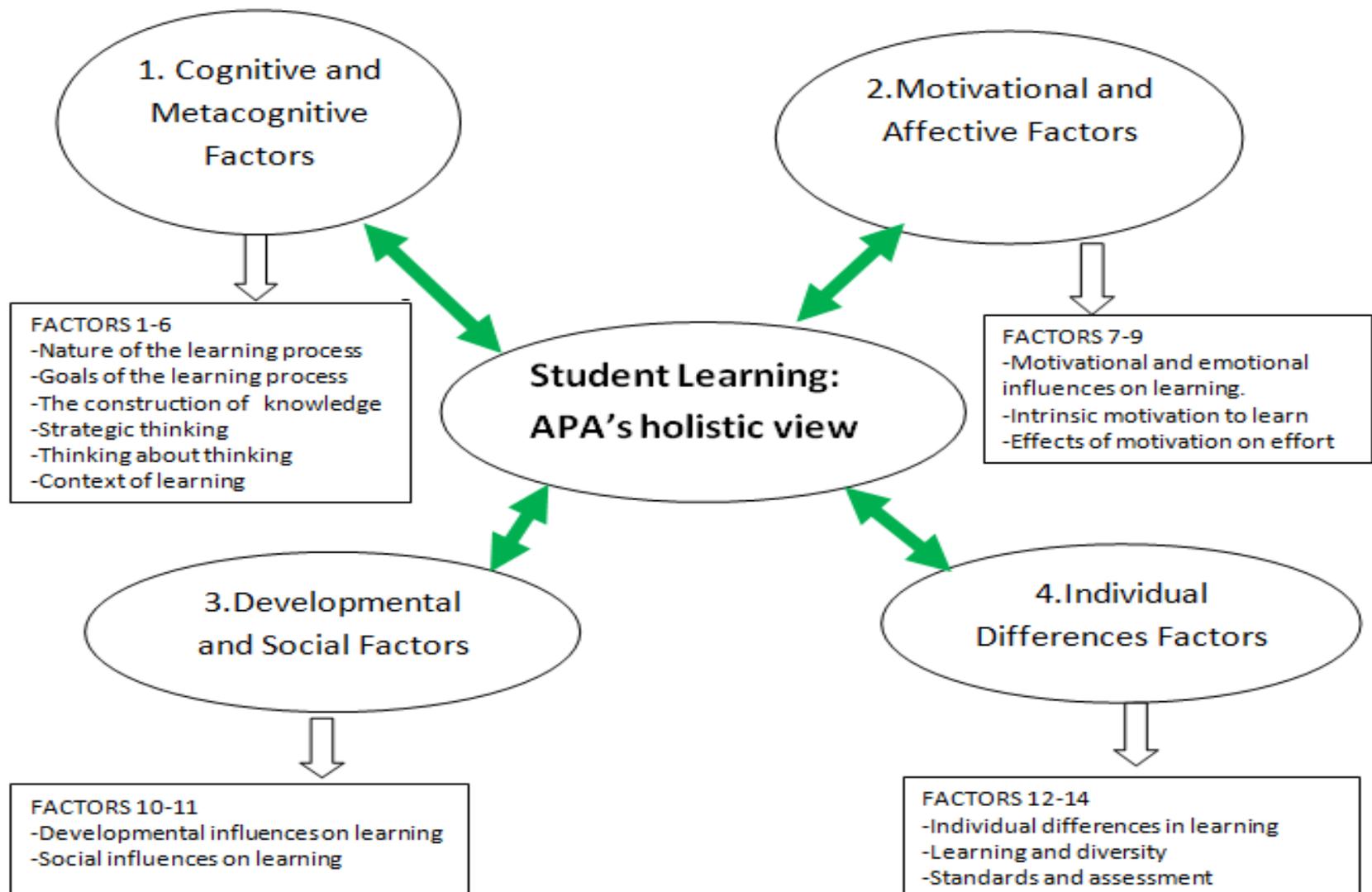
- ▶ *“(Vietnam’s) employers are seeking workers, but they cannot find the workers that match their skill needs.”*
 - *“employers are...looking for cognitive skills and behavioral skills.”*
 - *“...are expecting [white collar workers] can think critically, solve problems, and present their work in a convincing manner.”*

Industry demands

- ▶ *"People are going to have to be retrained and reskilled throughout their career."*
- ▶ *"What you guys in university need to instill in [students] is the **ability to learn, the ability to be adaptive, change, and learn new things.**"*
Peter Norvig
Research Director at Google (2017)

➤ Self-Directed Learning and FSA

Student Learning: a holistic view



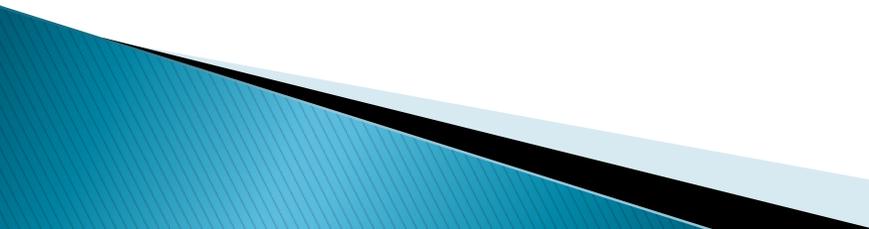
Self-Directed Learning (SDL)?

- ▶ Individuals take initiative and responsibility for learning
- ▶ Individuals select, manage, and assess their own learning activities
- ▶ Motivation and volition are critical
- ▶ Independence in setting goals & defining what is worthwhile to learn.
- ▶ Teachers provide scaffolding, mentoring, advising.
- ▶ Peers provide collaboration
- ▶ <https://www.naefoee.org/File.aspx?id=4455>
- ▶ <http://www.selfdirectedlearning.com>

Constructive Alignment

- ▶ Constructive Alignment is the process as “*aligning curriculum objectives, teaching/learning activities and assessment tasks*” (Biggs, 1999)

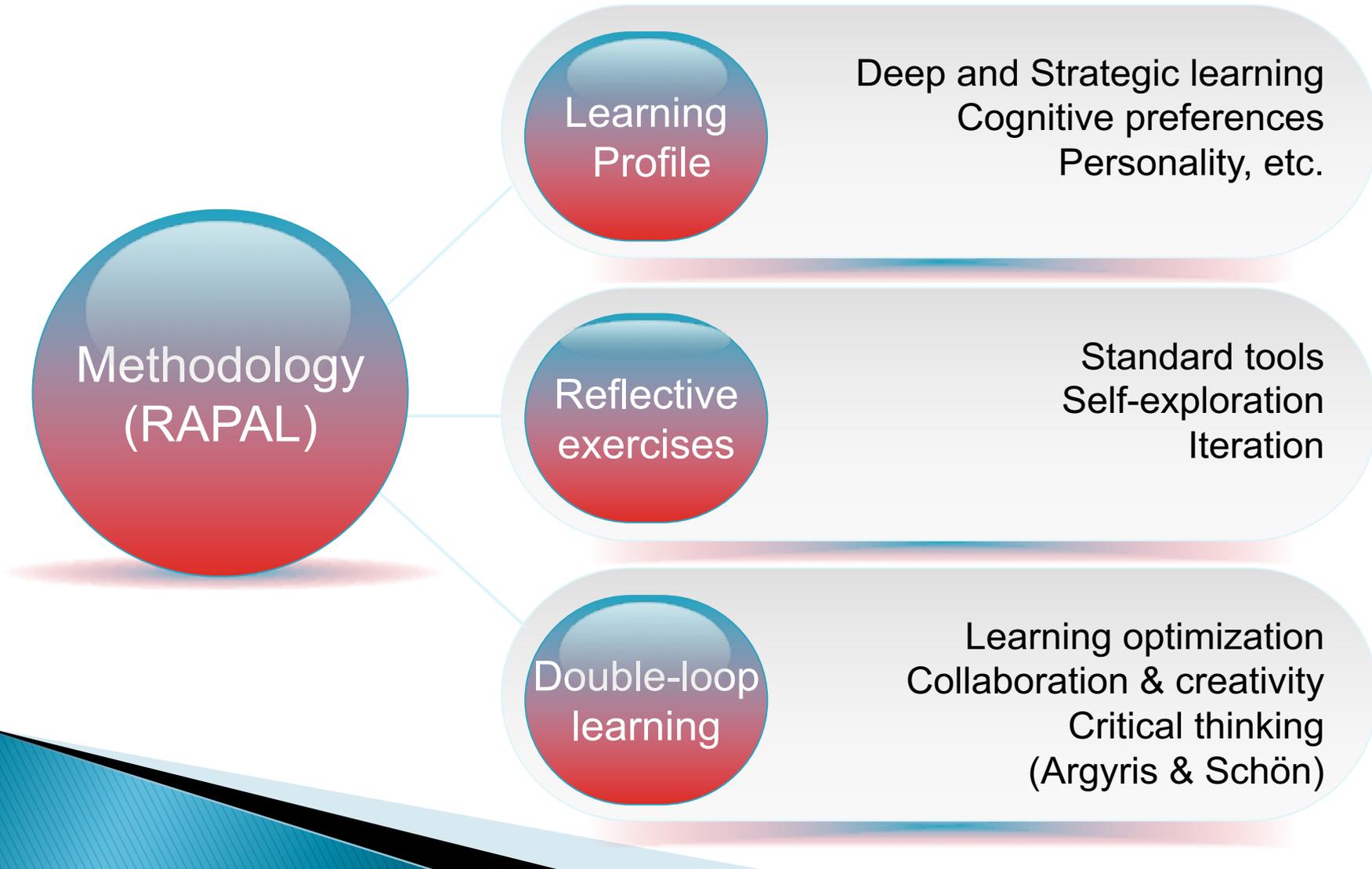
Flexible Student Alignment (FSA)

- ▶ FSA focuses on the learner and consequently considers alignment from the student perspective (Webster, 2009)
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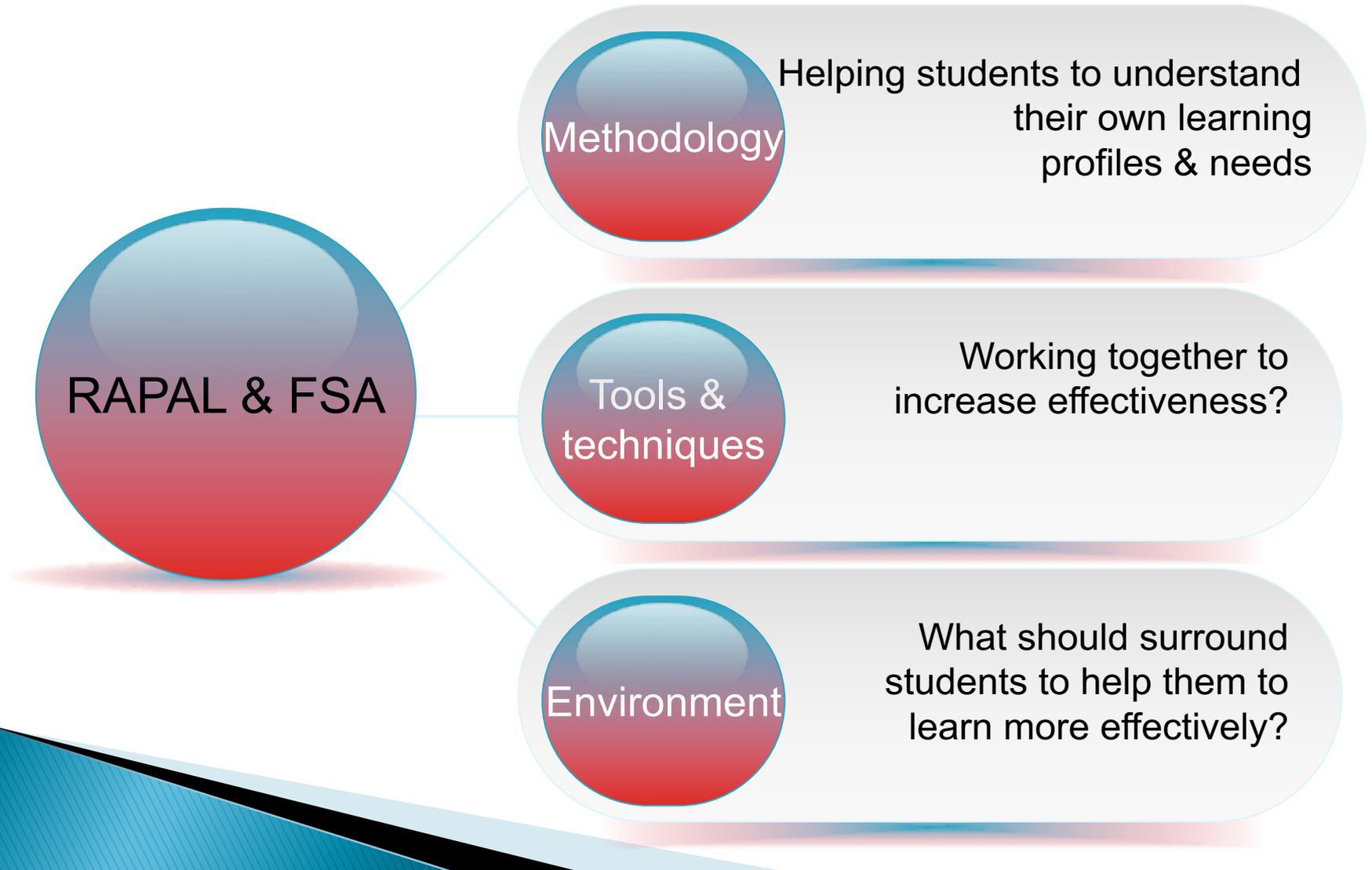
Flexible Student Alignment (FSA):

- ▶ FSA is enabled by the process of involving the student in a series of learning tasks and activities which are designed to foster metacognitive awareness (RAPAL).
 - ▶ The parallel development of an individual or personal learning environment provides a practical and creative focus.
- 

RAPAL Methodology: Key Elements



RAPAL & FSA: Tools, techniques, environment



Progression with RAPAL & FSA:

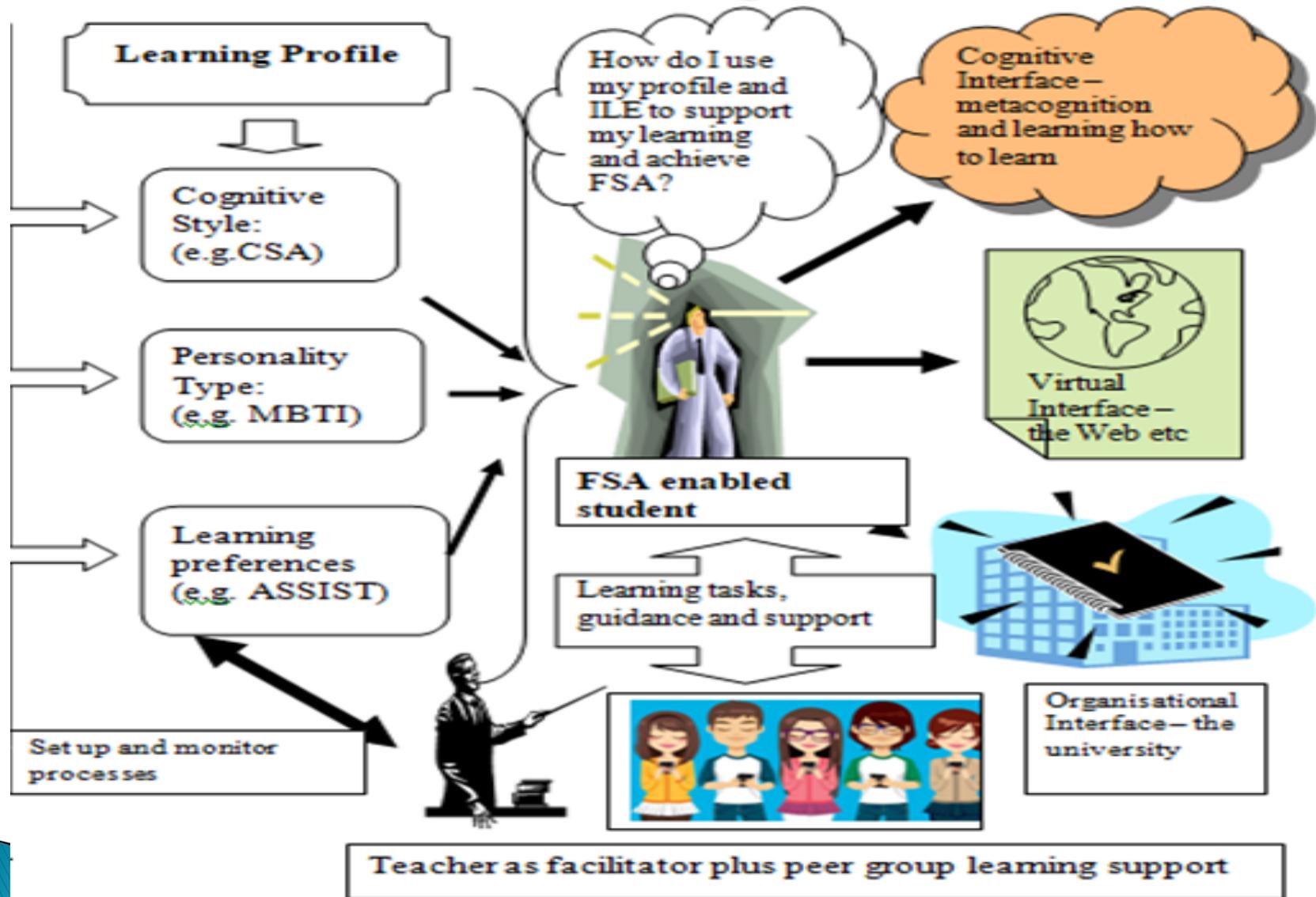
1. Profile, action, reflection
(learn who you are)

3. Implement
(PLE, development plans)



2. Exploration (metacognitive
development; developing
learning strategies)

Flexible Student Alignment



Five Key Elements of Personalized Learning

- ▶ **Learner Profiles:** This involves capturing the individual skills, gaps, strengths, weaknesses, interests, and aspirations of each student
- ▶ **Personal Learning Paths:** This involves creating an individual pathway for each student, based on his or her unique learner profile
- ▶ **Individual Mastery:** Schools must continually assess student progress against clearly defined standards and goals.
- ▶ **Flexible Learning Environments:** Educators should include multiple options and approaches in their delivery of instruction to support student learning
- ▶ **Student Agency:** Students should have some control over how they learn.
 - (source Pipkin, 2015: <https://www.edsurge.com/news/2015-04-01-five-key-elements-of-personalized-learning>)

Research and practical evidence

- ▶ 1,500 micro-businesses in Togo
- ▶ Control vs business vs metacognitive
- ▶ Business: Profits up 11%
- ▶ Metacognitive: Profits up 30%
 - More innovation
- ▶ Teach how (vs what) to think

Summary

- ▶ Skills for 4th Industrial Revolution
 - ▶ Student Learning: a holistic view
 - ▶ Self-Directed Learning and FSA
 - ▶ RAPAL Methodology: Key Elements
 - ▶ Research and practical evidence
- 

References

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