

หลักการและทฤษฎีการเรียนรู้

รศ.ดร.บุปผชาติ ทัพพิกรณ์

ผู้ทรงคุณวุฒิพิเศษ สำนักบริการคอมพิวเตอร์

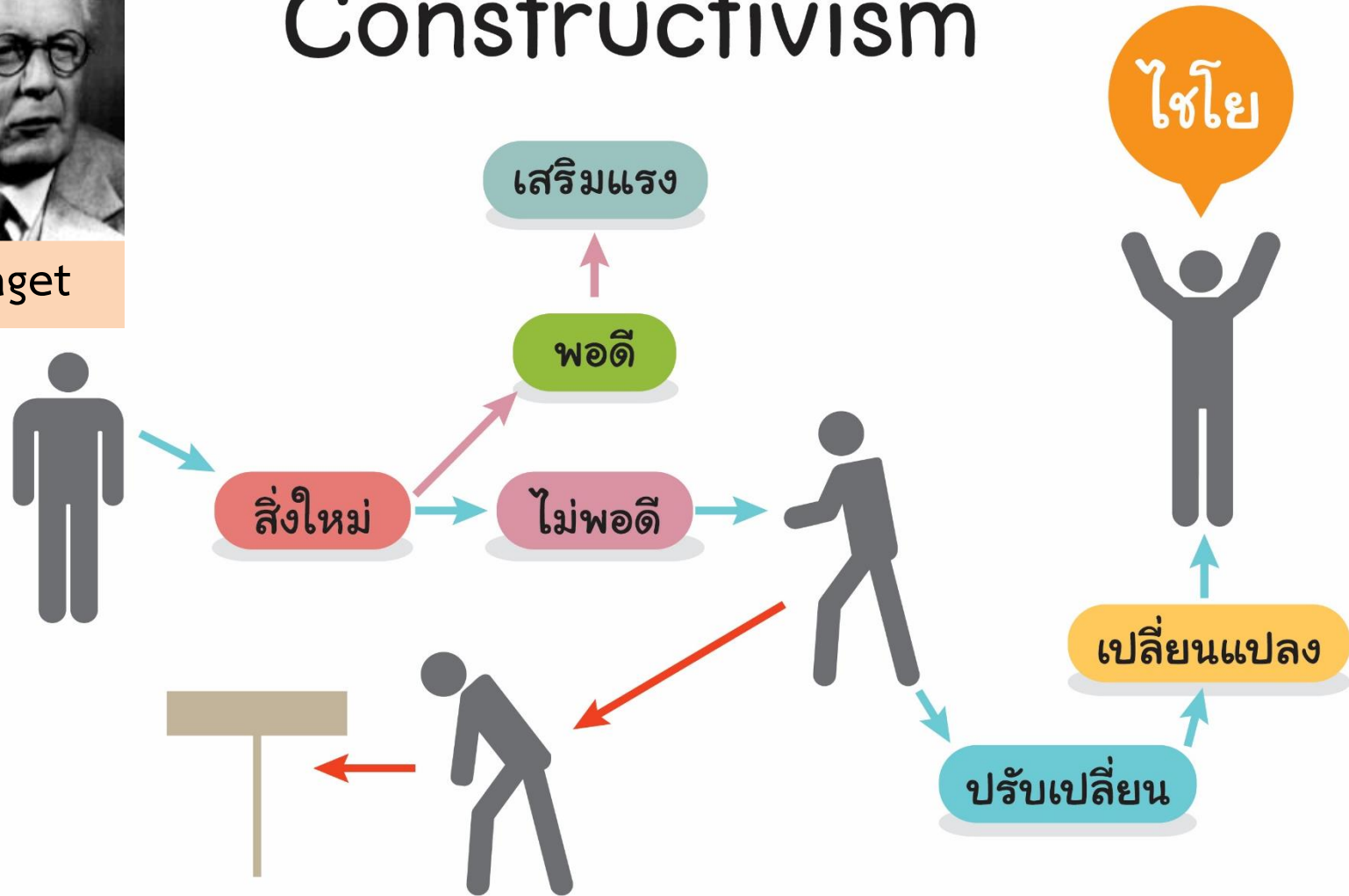
มหาวิทยาลัยเกษตรศาสตร์

btun@ku.ac.th

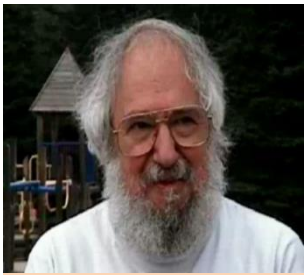


Piaget

Constructivism

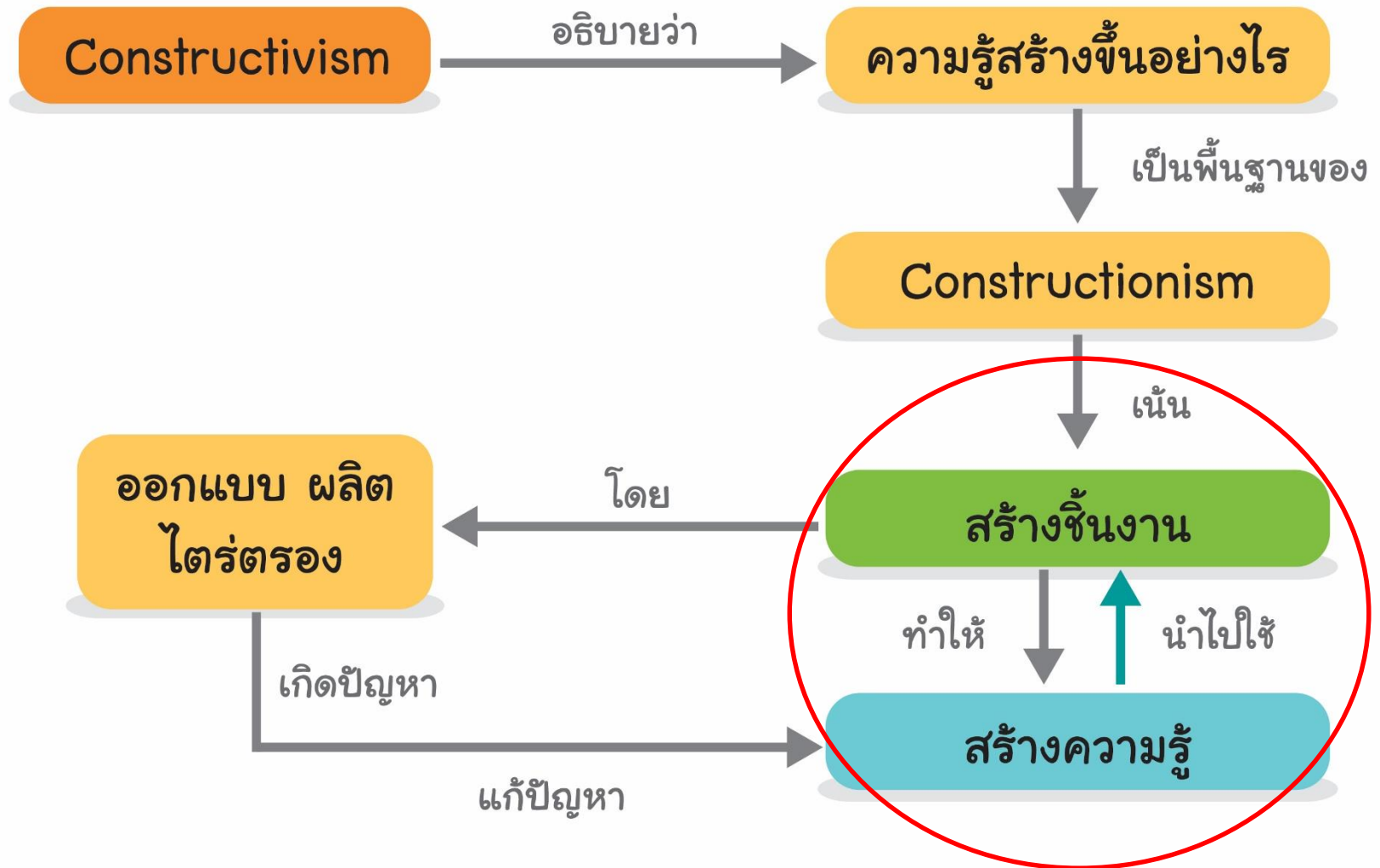


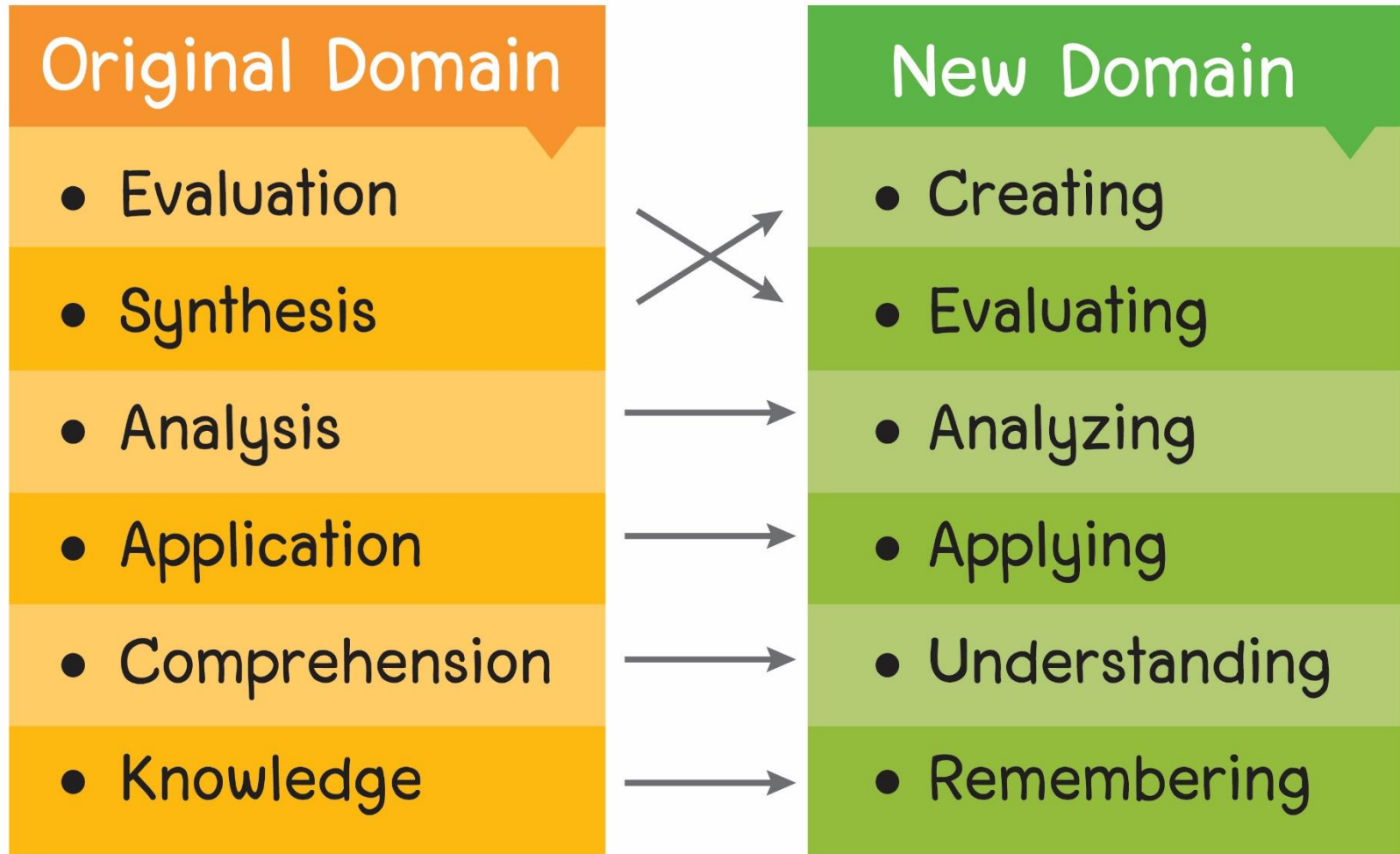
วงจรปฏิสัมพันธ์ (Interaction Cycle)



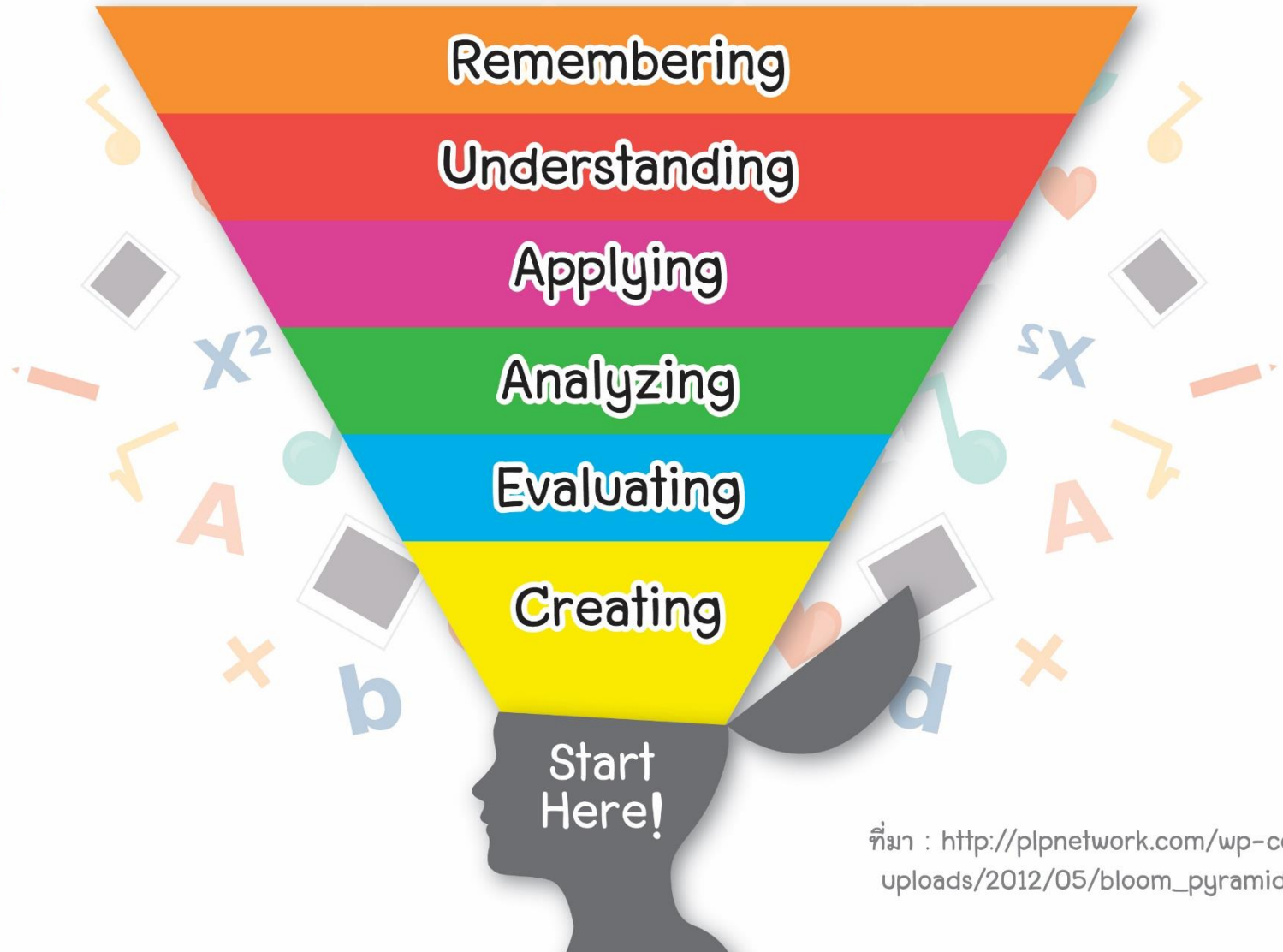
Papert

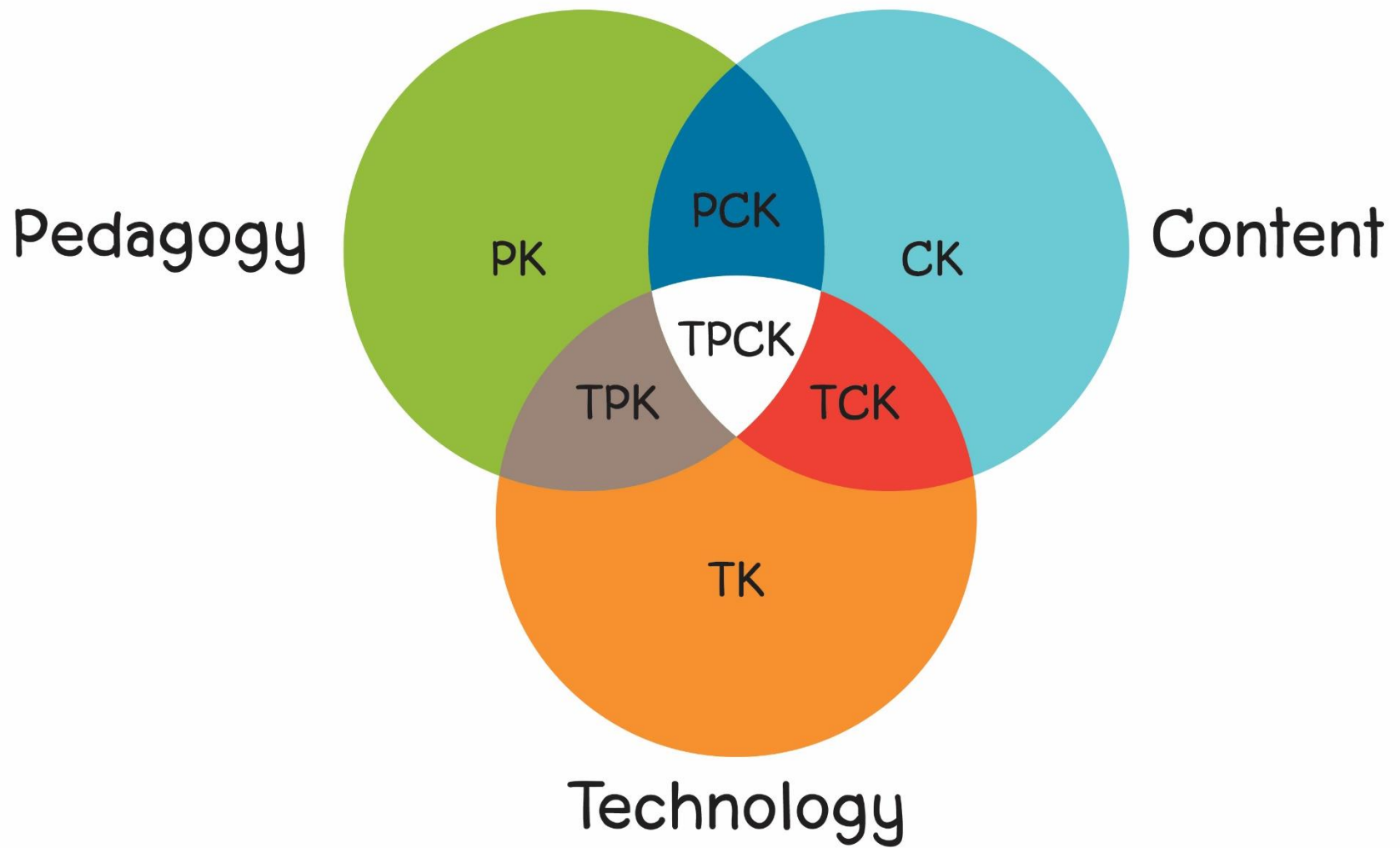
Constructionism



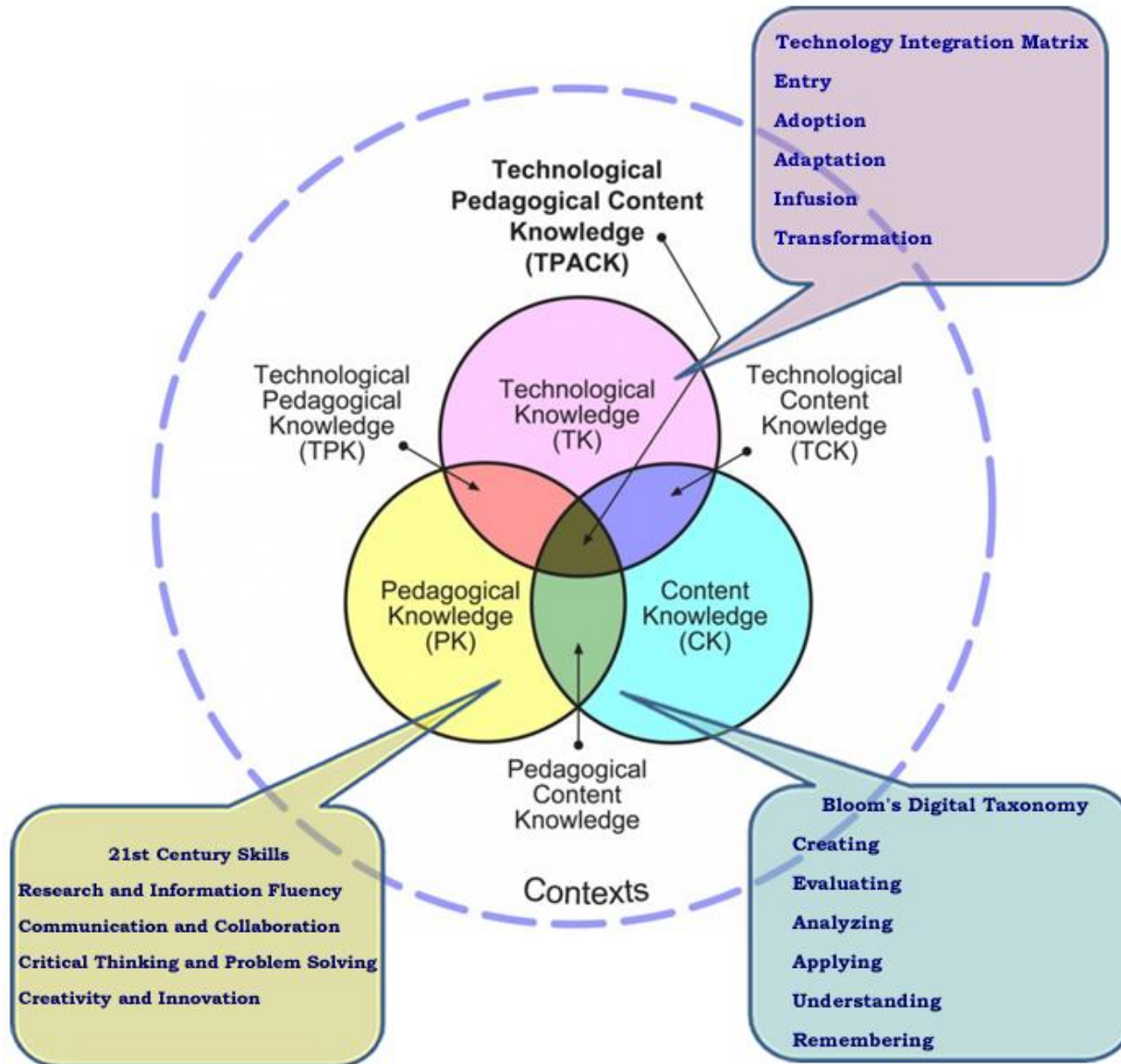


Blooms 21





The T.P.A.C.K. Framework for Technology Integration



The SAMR Model

R

Redefinition

Tech allows for the creation of new tasks, previously inconceivable

M

Modification

Tech allows for significant task redesign

A

Augmentation

Tech acts as a direct tool substitute, with no functional improvement

S

Substitution

Tech acts as a direct tool substitute, with functional change

Transformation

Enhancement

Levels of Technology Integration into the Curriculum

	Entry	Adoption	Adaptation	Infusion	Transformation
Active	Information passively received	Conventional, procedural use of tools	Conventional independent use of tools; some student choice and exploration	Choice of tools and regular, self-directed use	Extensive and unconventional use of tools
Collaborative	Individual student use of tools	Collaborative use of tools in conventional ways	Collaborative use of tools; some student choice and exploration	Choice of tools and regular use for collaboration	Collaboration with peers and outside resources in ways not possible without technology
Constructive	Information delivered to students	Guided, conventional use for building knowledge	Independent use for building knowledge; some student choice and exploration	Choice and regular use for building knowledge	Extensive and unconventional use of technology tools to build knowledge
Authentic	Use unrelated to the world outside of the instructional setting	Guided use in activities with some meaningful context	Independent use in activities connected to students' lives; some student choice and exploration	Choice of tools and regular use in meaningful activities	Innovative use for higher order learning activities in a local or global context
Goal-Directed	Directions given, step-by-step task monitoring	Conventional and procedural use of tools to plan or monitor	Purposeful use of tools to plan and monitor; some student choice and exploration	Flexible and seamless use of tools to plan and monitor	Extensive and higher order use of tools to plan and monitor

The Technology Integration Matrix was developed by the Florida Center for Instructional Technology at the University of South Florida College of Education and funded with grants from the Florida Department of Education. For more information, visit <http://mytechmatrix.org>.