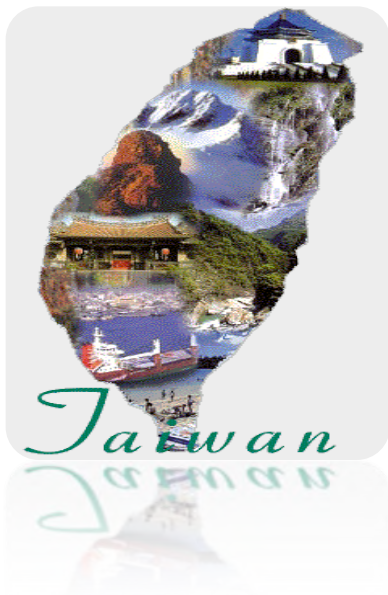# General Education Outcomes Assessment — Continuous Improvement of Learning

TWAEA

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- Chairman, Taiwan Assessment and Evaluation Association **(TWAEA)**

- Honorary President and Distinguished Chair Professor, I-Shou University

16 June 2017

Outlines

1 Preface

2 Gen Ed Competencies and Learning Outcomes

3 Assessment of Gen Ed Outcomes for Student Learning

4 General Education Evaluation for Universities in Taiwan

5 General Education & Institutional Research (IR)
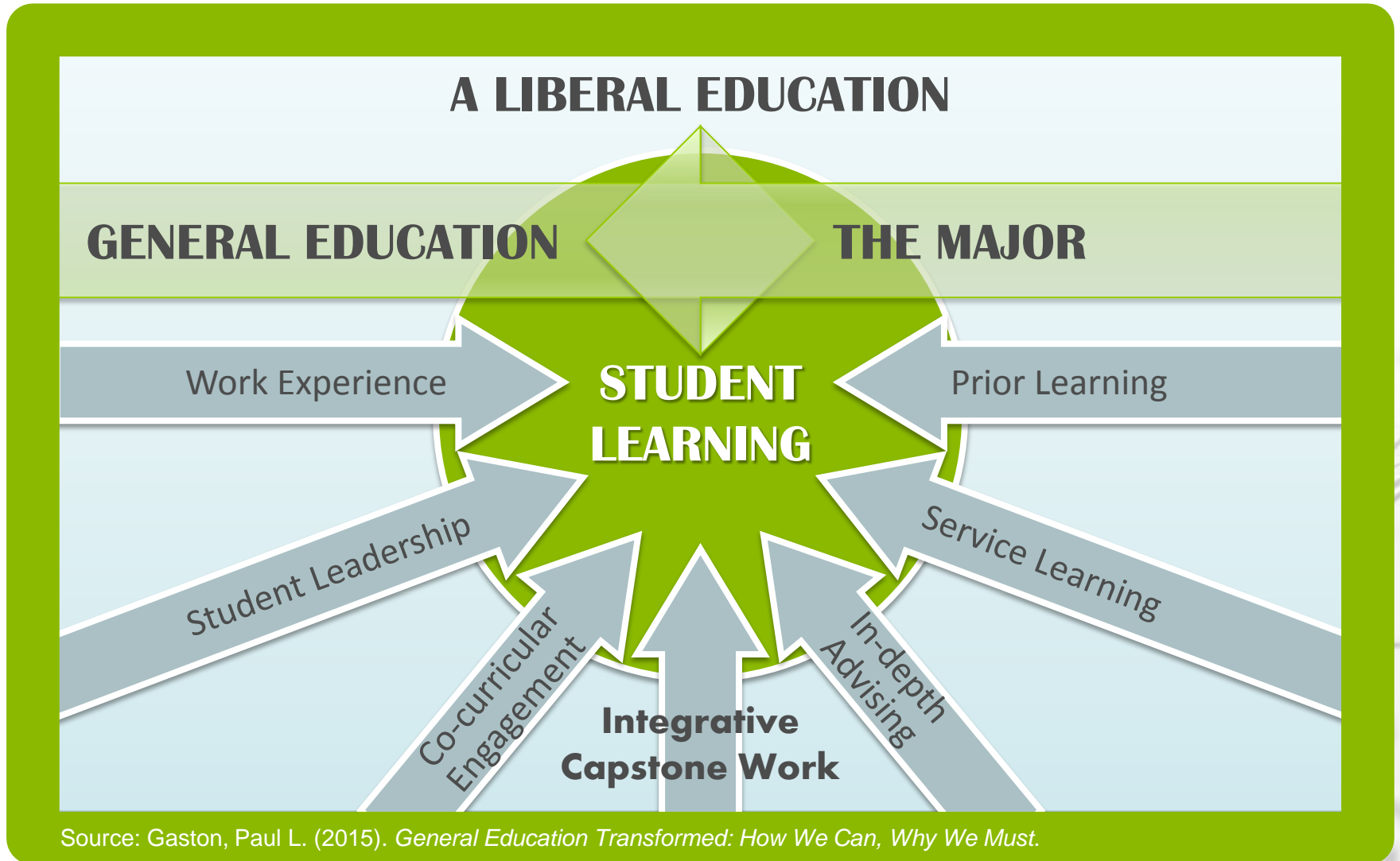
6 Conclusion & Perspectives

1 Preface

GENERAL
EDUCATION

A 21ˢᵗ Century Liberal Education

A LIBERAL EDUCATION

GENERAL EDUCATION **THE MAJOR**

STUDENT LEARNING

Work Experience

Prior Learning

Student Leadership

Service Learning

Co-curricular Engagement

In-depth Advising

Integrative Capstone Work

Source: Gaston, Paul L. (2015). *General Education Transformed: How We Can, Why We Must.*

A Model of Graduate Employability Development

The Major (study in depth) **+** General Education (study in breadth)

Higher Education Institution → **Employability Development Opportunities**

pedagogy

Graduate — engagement

- **Employability Attributes**
- **Work Experience**
- **Self-promotional Skills**
- **Willingness to Develop**

Extra-curricular Experiences

reflection

Employability

articulation

External Factors

Employer → Recruitment → **Employment**

Market → Portfolio → **Self-employment**

Source: Revised form Harvey, Lee. (2006). *Employability and Diversity*.
Retrieved from http://www2.wlv.ac.uk/webteam/confs/socdiv/sdd-harvey-0602.doc

5

Identification of Core Employability Skills by Country 2-1

AUSTRALIA	CHILE	INDIA
1. Communication	1. Oral and written communication	1. English language
2. Teamwork	2. Reading and using various types of texts	2. Communication
3. Problem-solving	3. Performing tasks neatly, meeting deadlines and quality standards	3. Occupational safety and health
4. Initiative and enterprise skills	4. Seeking relevant alternatives and solutions when problems arise	4. Entrepreneurship
5. Planning and organization	5. Working effectively in a team	5. Presentation
6. Self-management		6. Self-management
7. Learning		7. Ability to plan
8. Technology		8. Organize and coordinate
		9. Leadership
		10. Ability to cope with stress
		11. Negotiation

Source: Abridged from Brewer, Laura, & Comyn, Paul. (2015). *Integrating Core Work Skills into TVET Systems: Six Country Case Studies.* Retrieved from http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_470726.pdf

Identification of Core Employability Skills by Country 2-2

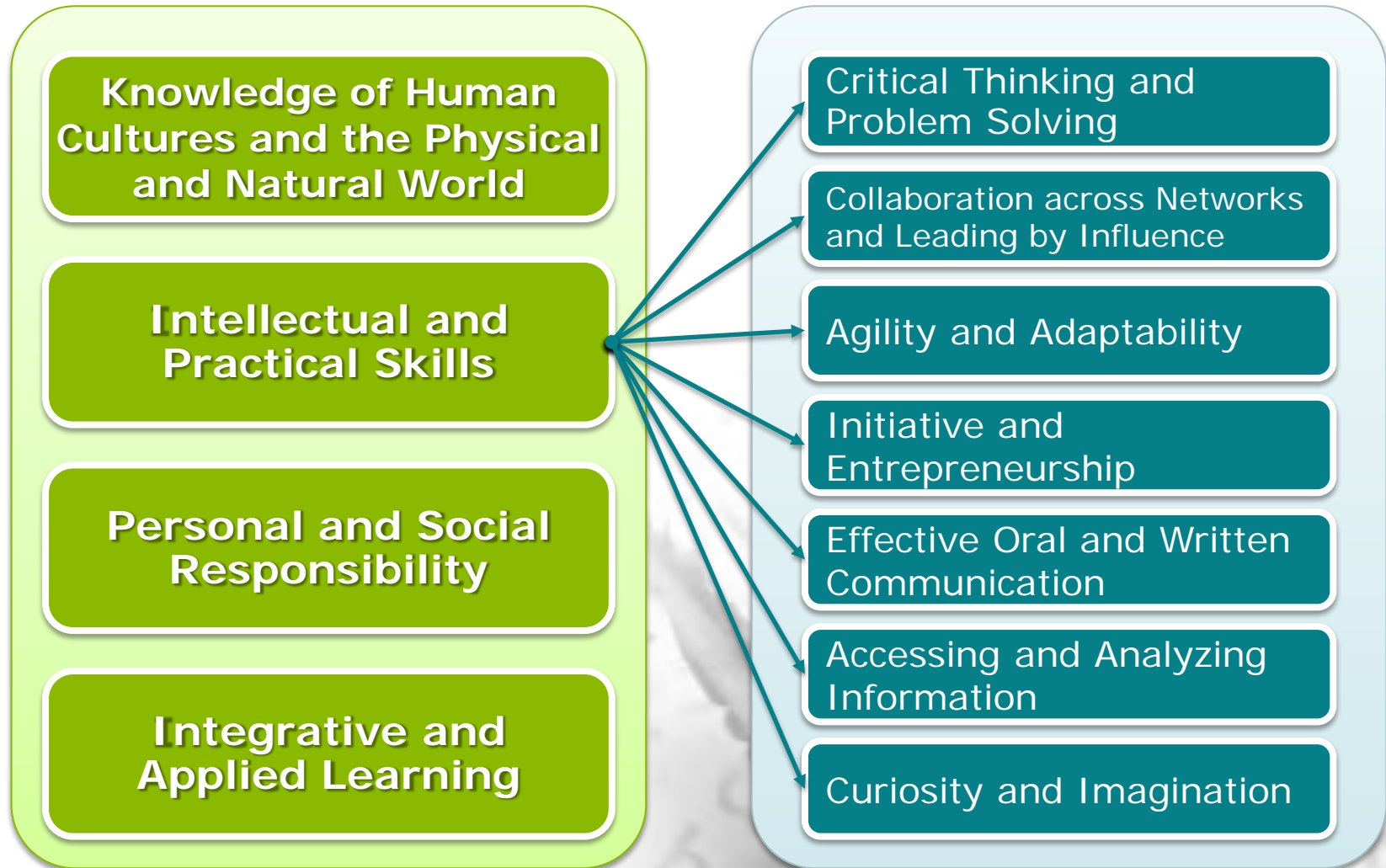| JAPAN	TAIWAN	UNITED STATES
1. Initiative	1. Good work attitudes	1. Applied academic skills
2. Ability to influence	2. Stability and stress management or resistance	2. Critical thinking skills
3. Execution skill	3. Expression and communication skills	3. Resource management
4. Ability to detect issues	4. Professional knowledge and skills	4. Information use
5. Planning skill	5. Willingness to learn and moldability	5. Communication skills
6. Creativity	6. Cooperation or teamwork skills	6. Systems thinking
7. Ability to deliver messages	7. Basic computer application skills	7. Technology use
8. Listening skill	8. Problem identification and solving abilities	8. Personal qualities
9. Flexibility		9. Interpersonal skills
10. Ability to grasp situations		
11. Ability to apply rules		
12. Ability to control stress		

LEAP Goals for General Education

- Knowledge of Human Cultures and the Physical and Natural World
- Intellectual and Practical Skills
- Personal and Social Responsibility
- Integrative and Applied Learning

Tony Wagner's Seven Survival Skills

- Critical Thinking and Problem Solving
- Collaboration across Networks and Leading by Influence
- Agility and Adaptability
- Initiative and Entrepreneurship
- Effective Oral and Written Communication
- Accessing and Analyzing Information
- Curiosity and Imagination

Gen Ed Competencies and Learning Outcomes

2

Human Interaction with …

Philosophy

Abstraction Level of Knowledge

Universe & Unknown World

Politics & Nations
Society & Culture

Family & School

Personal

Personal

Spirit

Mental

Intelligence | Emotion

Spirit

Mental

Intelligence | Emotion

Natural Environment

Human Social Environment

Natural Environment

Practice

Time

Past (History) — **Now** — **Future (Trends)**

OECD: Key Competencies for a Successful Life and a Well-Functioning Society

Act Autonomously

- Act within the big picture
- Form and conduct life plans and personal projects
- Defend and assert rights, interests, limits and needs

Interact in Heterogeneous Groups

- Relate well to others
- Co-operate, work in teams
- Manage and resolve conflicts

Use Tools Interactively

- Use language, symbols and texts interactively
- Use knowledge and information interactively
- Use technology interactively

Source: Organisation for Economic Co-operation and Development (OECD). (2005). *The Definition and Selection of Key Competencies: Executive Summary*. Retrieved from http://www.oecd.org/pisa/35070367.pdf

Input-Process-Output / Outcome

OUTPUT

- Student grade point averages
- Degrees awarded & graduation rates
- Faculty publications & patents
- Research expenditures

INPUT

Faculty

Students

Equipment & facilities

Resources

Administrative support

PROCESS

Course structure

Curriculum design & development

Course syllabi

Pedagogical methods, techniques & strategies
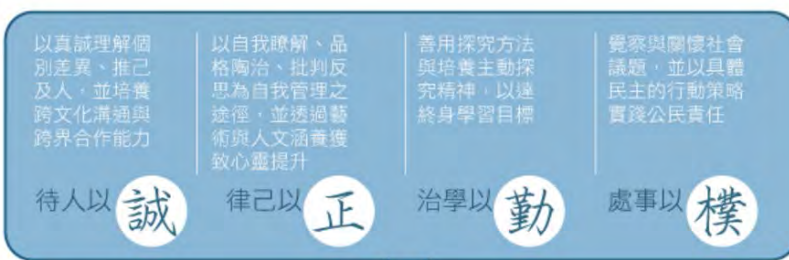
Evaluation / accreditation

OUTCOME

Assessment of learning (e.g. test/exam, report, oral presentation...)

e-Portfolio

Survey of student engagement (e.g. freshman, senior...)

Course evaluation survey

Learning performance

Alumni career tracking survey

Employer satisfaction survey
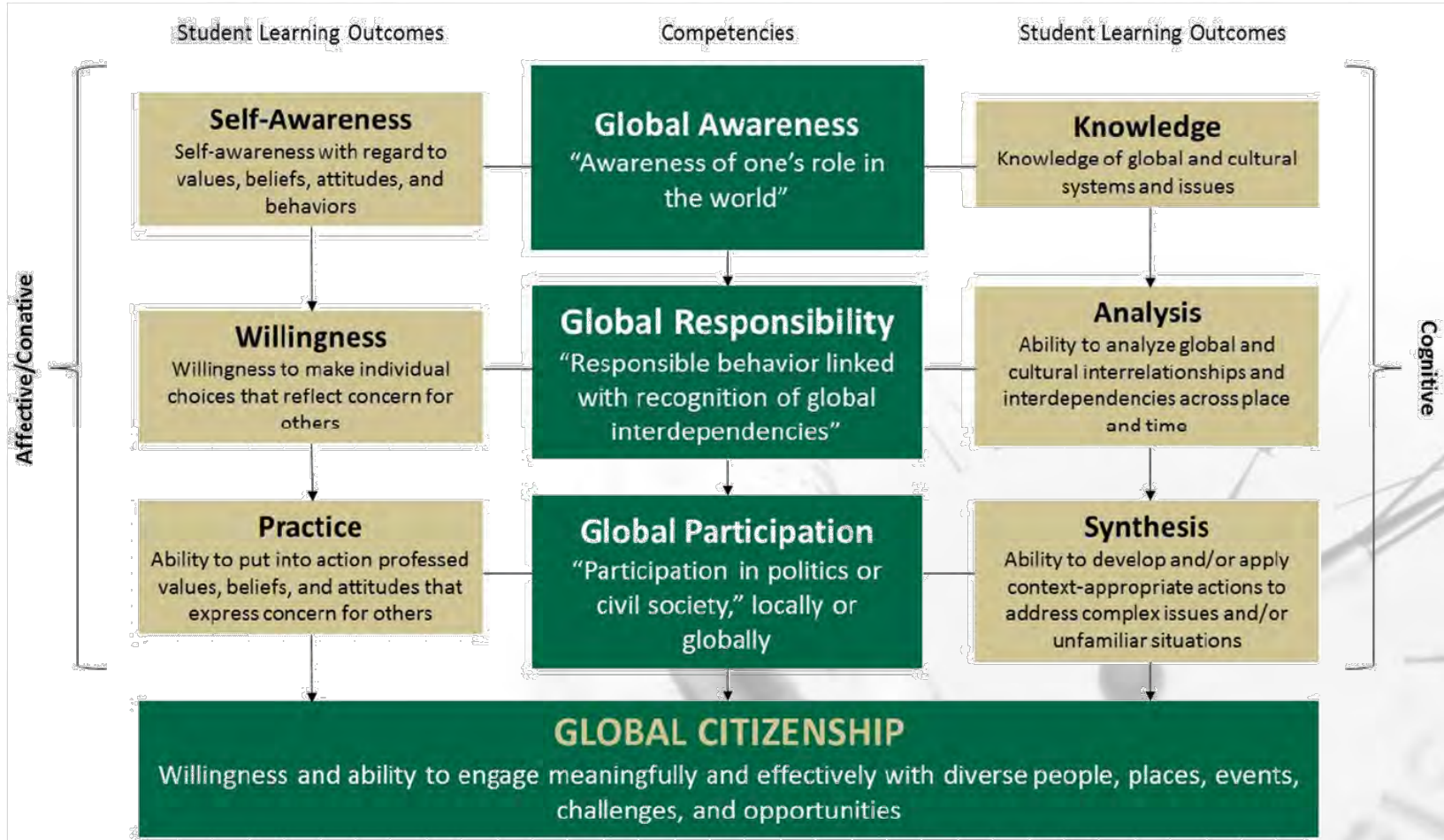
❖ National Taiwan Normal University

本校通識核心素養內容

	1. 能傾聽他人意見正確理解， 述個人見解。 2. 能進行有效分工並參與團隊
溝通表達與團隊合作/ Communication and collaboration	
多元文化與國際視野/ Multicultural literacy and global perspective	1. 能尊重與欣賞其他文化的 解。 2. 能掌握國際社會脈動，並
批判反思與人文涵養/ Critical thinking and humanistic literacy	1. 能以求真的態度運用理性 2. 能展現對人的尊重與關懷 值衝突的議題。
美感體驗與品味生活/ Aesthetics and taste	1. 能認識藝術的豐富內涵， 表演。 2. 能於日常生活中運用美感 我的創作理念。
科學思辨與資訊素養/ Scientific thinking and information literacy	1. 能認識自然科學的基本概 2. 能分辨各種資訊媒體的功
主動探究與終身學習/ Active exploration and lifelong learning	1. 能善用各種學習資源與管 2. 能體認終身學習的重要性 的環境需求。
創新領導與問題解決/ Innovative leadership and problem solving	1. 能運用創意與新思維，帶 2. 能系統剖析與探究問題，
社會關懷與公民實踐/ Social concern and citizenship practice	1. 能關懷社會弱勢，運用相 動。 2. 能發揮公民力量凝聚社群 社會改良。

Source: Center for General Education, National Taiwan Normal University.
Retrieved from http://iweb.ntnu.edu.tw/aa/aa5/cge/corecompetence.htm

❖ **University of South Florida's Global Citizenship Framework**

Source: Davis-Salazar, Karla L., & West, Nicole M. (2016). *Global Citizenship as a High-quality and Equity-focused Framework for General Education*. Retrieved from https://www.aacu.org/sites/default/files/files/gened16/SouthFlorida.pdf

LEAP (Liberal Education and America's Promise) Essential Learning Outcomes

Knowledge of Human Cultures and the Physical and Natural World	Intellectual and Practical Skills	Personal and Social Responsibility	Integrative and Applied Learning

- Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

- Inquiry and analysis
- Critical and creative thinking
- Written and oral communication
- Quantitative literacy
- Information literacy
- Teamwork and problem solving

- Civic knowledge and engagement- local and global
- Intercultural knowledge and competence
- Ethical reasoning and action
- Foundations and skills for lifelong learning

- Synthesis and advanced accomplishment across general and specialized studies

Source: Rhodes, Terrel L., & Finley, Ashley. (2013). *Using the VALUE Rubrics for Improvement of Learning and Authentic Assessment.* 15

Employer Priorities and Consensus on College Learning Outcomes

Knowledge of Human Cultures and the Physical and Natural World	
Knowledge and understanding of democratic institutions and values	**87%**
Broad knowledge in the liberal arts and sciences	78%
Intercultural skills and understanding of societies and cultures outside the US	78%
Intellectual and Practical Skills	
Oral communication	85%
Teamwork skills in diverse groups	83%
Written communication	82%
Critical thinking and analytic reasoning	81%
Complex problem solving	70%
Information literacy	68%
Innovation and creativity	**65%**
Technological skills	**60%**
Quantitative reasoning	**56%**
Personal and Social Responsibility	
Problem solving in diverse settings	**96%**
Civic knowledge, skills, and judgment essential for contributing to the community and to our democratic society	**86%**
Ethical judgment and decision making	81%
Integrative and Applied Learning	
Applied knowledge in real-world settings	80%

Source: Humphreys, Debra. (2016). *Trends in General Education and Assessment Design.*

RIGOR

Critical Thinking

Synthesis

Near Transfer/Far Transfer

Clarity

Rigorous Consideration

Andrews University

Hope COLLEGE

INTERNAL

Self-Efficacy

Self Awareness

Self Authority over Actions

Self Esteem

Modeling Behavior

Empathy

Exhibit Active Listening/Curiosity

Embrace Diverse Perspectives

Work through Others' Lenses

Move from Differences to Change

Resilience

Identifying Strengths

Problem Solving

Managing Conflict

Engaging in Mindful Practices

MASON

Source: Education Design Lab. (2017). *21st Century Skills Badges*. Retrieved from http://eddesignlab.org/21st-century-skills-badges/

EXTERNAL

Oral Communication

Clarity/Organization

Courage/Body Language

Deep Listening

Rapport/Responsiveness to Audience

IREX

Collaboration

Active Listening

Strengthening Relationships

Incorporating Diverse Perspectives

Solution-focused

ARIZONA

Cross-Cultural Competency

Cultural Sensemaking

Perspective Taking

Curiosity

Managing Self-Affect

Source: Education Design Lab. (2017). *21st Century Skills Badges.* Retrieved from http://eddesignlab.org/21st-century-skills-badges/

CHANGE-MAKING

Creative Problem Solving

Solution-focused

Pattern Finding

Comfort with Ambiguity

Divergent/Convergent Thinking

Catalyst

Self Awareness

Initiates Action

Learns from Failure

Leads without a Title

Source: Education Design Lab. (2017). *21ˢᵗ Century Skills Badges.* Retrieved from http://eddesignlab.org/21st-century-skills-badges/

CHANGE-MAKING

Creative Problem Solving
- Solution-focused
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Collaboration
- Active Listening
- Strengthening Relationships
- Incorporating Diverse Perspectives
- Solution-focused

Cross-Cultural Competency
- Cultural Sensemaking
- Perspective Taking
- Curiosity
- Managing Self-Affect

RIGOR

Critical Thinking
- Synthesis
- Near Transfer/Far Transfer
- Clarity
- Rigorous Consideration

INTERNAL

Self-Efficacy
- Self Awareness
- Self Authority over Actions
- Self Esteem
- Modeling Behavior

Empathy
- Exhibit Active Listening/Curiosity
- Embrace Diverse Perspectives
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Resilience
- Identifying Strengths
- Problem Solving
- Managing Conflict
- Engaging in Mindful Practices

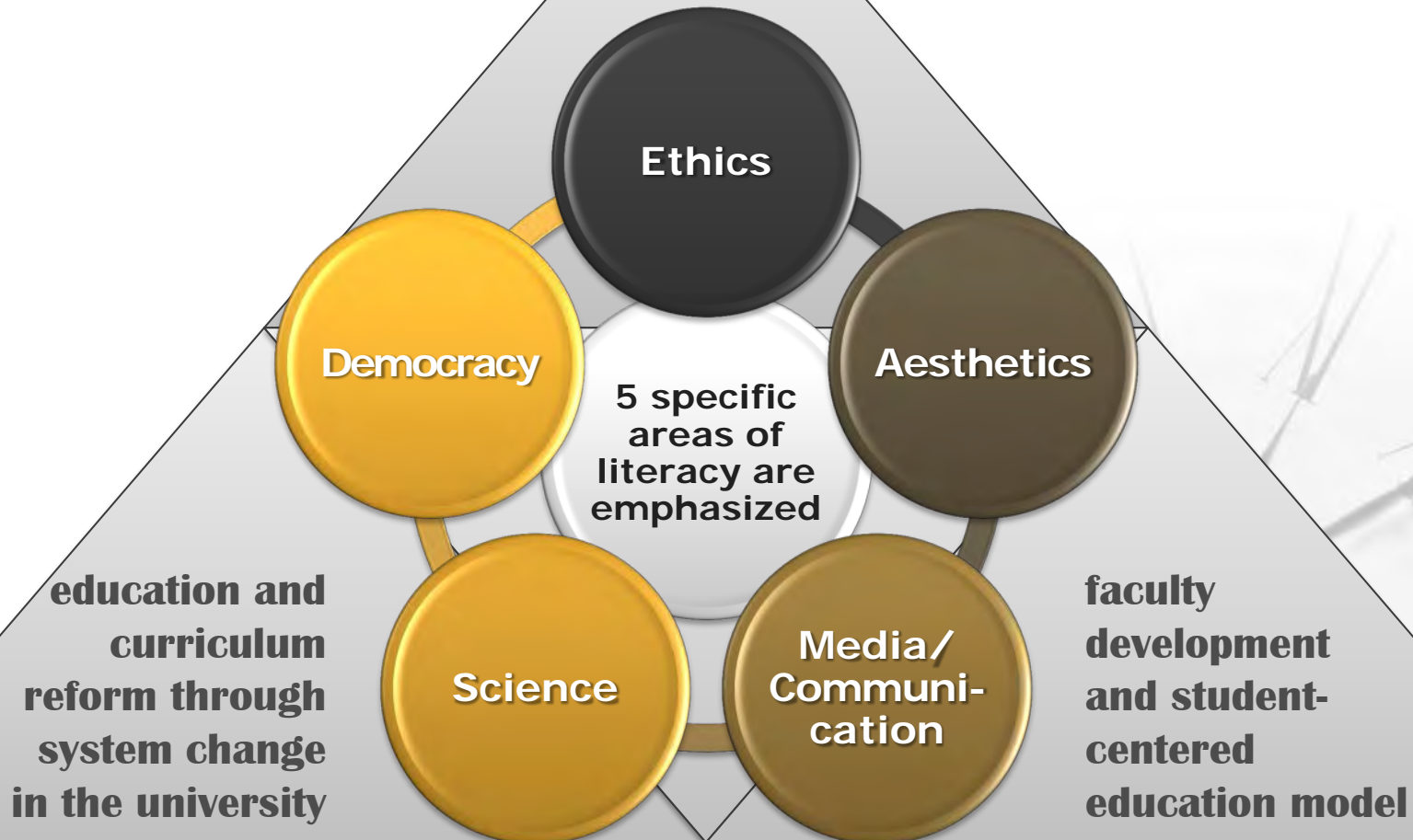# The Project of "Cultivating Citizens' Core Competence" (Taiwan)

❖ **In Taiwan, the general education reform movement called for higher education institutions not only to recognized the importance of general education but also its central role in relation to each college's mission.**

❖ **"Cultivating Citizens' Core Competence" is a 4 year project funded by the Ministry of Education (2011-2014).**

❖ **The main purpose of the project is to develop education models for cultivating core competence for undergraduate university students.**

Source: Ministry of Education (Taiwan). Retrieved from http://hss.edu.tw/wSite/mp?mp=4

Development Strategy for the Project of "Cultivating Citizens' Core Competence"

emphasize not only formal curriculum but also hidden curriculum
well designed integrated courses and programs
community outreach programs to enhance social participation

Ethics

Democracy

5 specific areas of literacy are emphasized

Aesthetics

education and curriculum reform through system change in the university

Science

Media/ Communi- cation

faculty development and student- centered education model

3 # Assessment of Gen Ed Outcomes for Student Learning

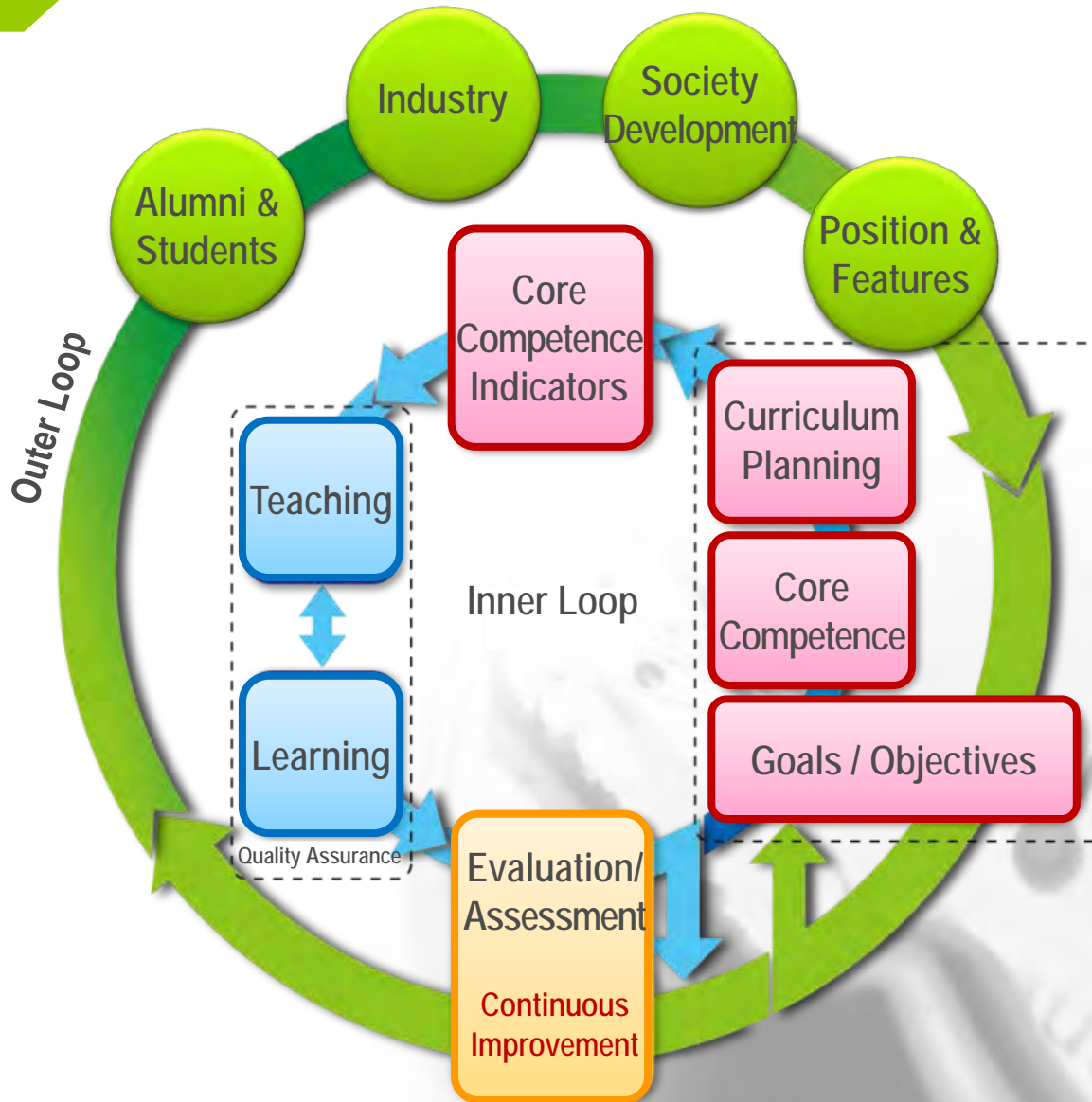**Through Assessment the Faculty Member and Students Act in a Context of Interactive Communication**
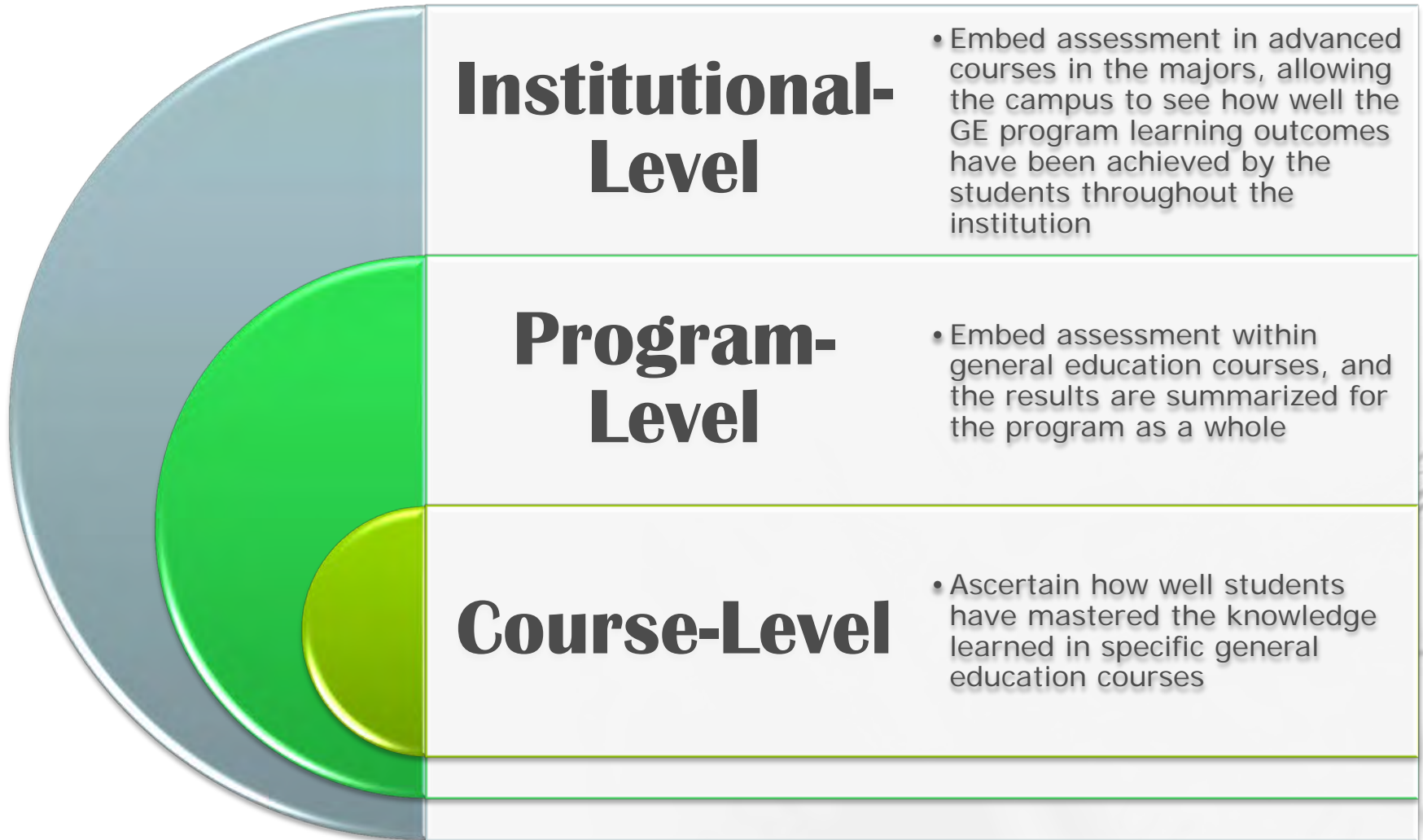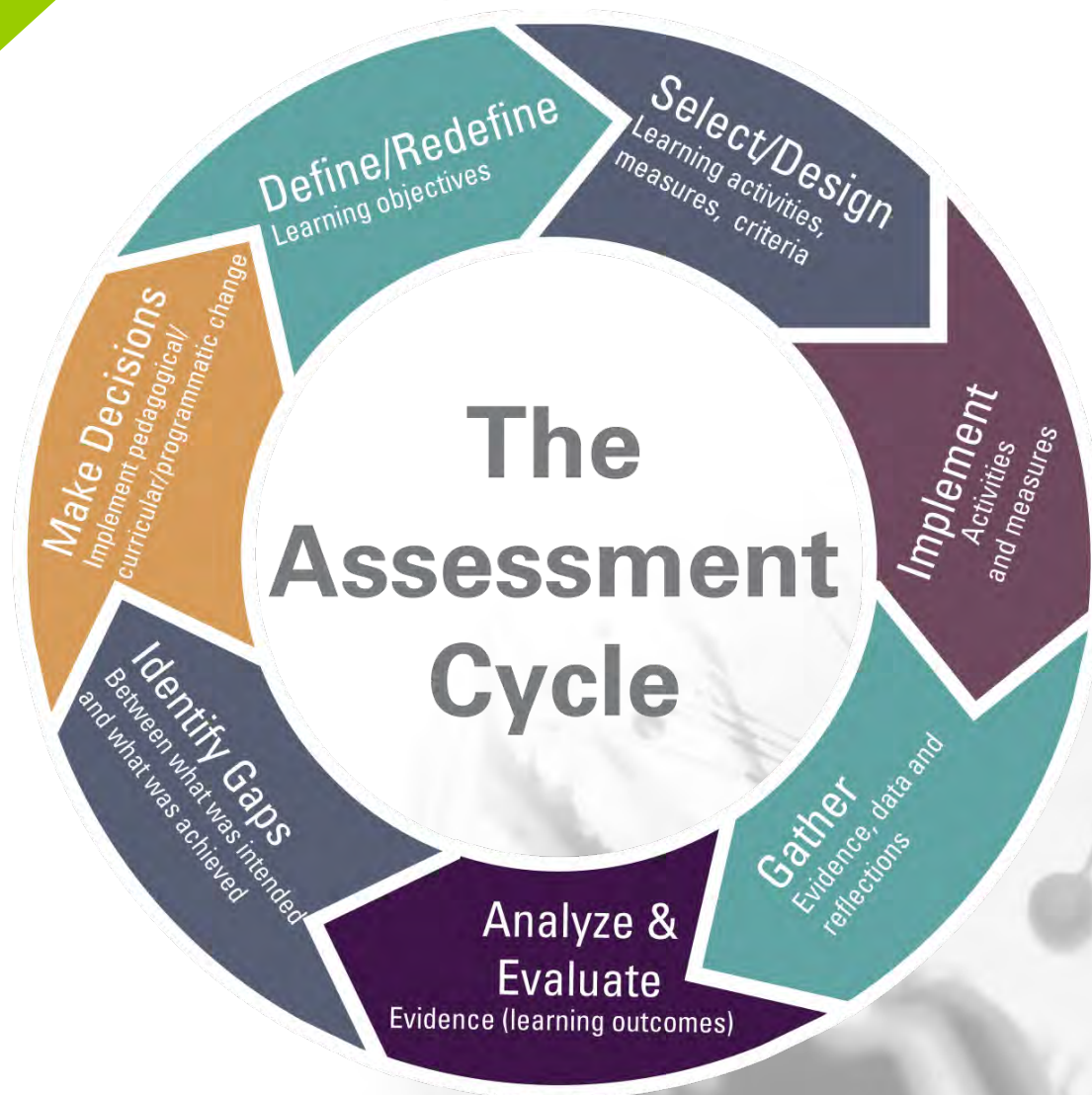
Institutional-Level

- Embed assessment in advanced courses in the majors, allowing the campus to see how well the GE program learning outcomes have been achieved by the students throughout the institution

Program-Level

- Embed assessment within general education courses, and the results are summarized for the program as a whole

Course-Level

- Ascertain how well students have mastered the knowledge learned in specific general education courses

Source: Searle Center for Advancing Learning & Teaching, Northwestern University. *Assessment Process*.
Retrieved from http://www.northwestern.edu/searle/assessment-of-student-learning/assessment-process/index.html

Dynamic Process of Continuous Assessment for Improvement

Data Collection Methods

Questionnaire Survey

Interviews

Test, Presentation

E-portfolios, and etc.

Set Performance Indicators

Acquire Data

Analyze Data

Facts

Expectations

Gaps between Facts and Expectations

Gap Analysis
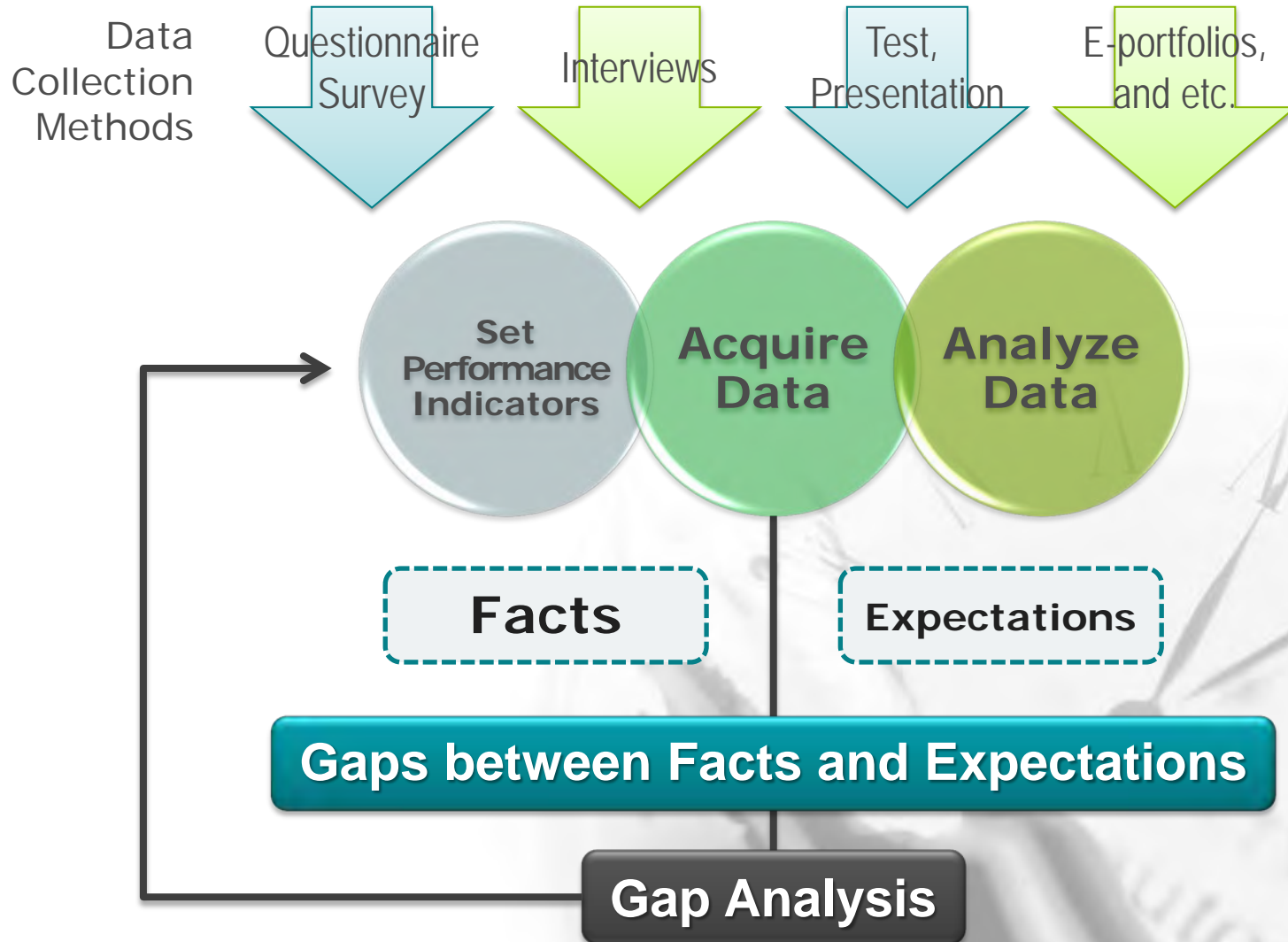
Inquiry-Reflection-Integration:
Design principles that support learning and improvement

Broad engagement in choosing and defining college-wide competencies	Intentional focus on integrative learning design and practice	Closing the Loop: Implementing evidence-based improvement

E-portfolios:
Grounding assessment in student learning artifacts

Professional Development:
Supporting an interactive learning & change process

Source: Eynon, Bret, & Gambino, Laura M. (2016). *Assessment, Campus-Wide Engagement and Change*.
Retrieved from https://www.aacu.org/sites/default/files/files/gened16/LaGuardiaGuttman.pdf

AAC&U Value Rubrics

❖ **The Project develops 16 VALUE rubrics for the LEAP Essential Learning Outcomes.**

❖ **Each rubric was developed from the most frequently identified characteristics or criteria of learning for each of the 16 learning outcomes.**

CREATIVE THINKING VALUE RUBRIC
for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Creative thinking is both the capacity to combine or synthesize existing ideas, images, or expertise in original ways and the experience of thinking, reacting, and working in an imaginative way characterized by a high degree of innovation, divergent thinking, and risk taking.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3	Milestones 2	Benchmark 1
Acquiring Competencies *This step refers to acquiring strategies and skills within a particular domain.*	Reflect: Evaluates creative process and product using domain-appropriate criteria.	Create: Creates an entirely new object, solution or idea that is appropriate to the domain.	Adapt: Successfully adapts an appropriate exemplar to his/her own specifications.	Model: Successfully reproduces an appropriate exemplar.
Taking Risks *May include personal risk (fear of embarrassment or rejection) or risk of failure in successfully completing assignment, i.e. going beyond original*	Actively seeks out and follows through on untested and potentially risky directions or approaches to the assignment in the final product.	Incorporates new directions or approaches to the assignment in the final product.	Considers new directions or approaches without going beyond the guidelines of the assignment.	Stays strictly within the guidelines of the assignment.

❖ The inferred construction model:

- ▪ **Take the commonality of contemporary citizens into account**
- ▪ **Based on the concept of interdisciplinary integration**
- ▪ **Emphasize on the practice of literacy**

Citizenship Education		Citizens' Core Competence		Indicators for Core Competence
• Cultivation of citizens' core competence • Development of all-round literacy	→	• Ethics • Democracy • Science • Media/ Communication • Aesthetics	→	• Knowledge • Skill • Attitude

Assessment Criteria for General Education of Premium Global Citizen in Taiwan

Indicator	Definition
the Ability and the Meaning of living (AM)	Cultivate student's capacity to apply the theoretical knowledge on solving problems of real life, to develop interest from a diverse way, to set goals for future, and to explore the meaning of life
Self-Understanding (SU)	Help student to develop self-concept, to enhance self-understanding, and to be aware of the role of himself/herself
Interpersonal Relationship (IR)	Learn the skills of interacting with others, and broaden human relations
Proactive and Lifelong learning (PL)	Encourage student to participate actively in curricular activities, to learn spontaneously in variety of environment, and to enrich all kinds of knowledge, so that he/she can develop individual potential and get self-achievement
Infinite Thoughts (IT)	Motivate student to think from different perspectives, to develop personal creativity, and to seek for the best suitable solution
Information Integration (II)	Impel student to look for information by using variety of resources, to sieve data effectively, and to integrate all kinds of information into meaningful knowledge
Familiar and Exploring environment (FE)	Encourage student to understand the environment, to discover the features of environment, to explore unfamiliar fields, and to get the courage to face the unknown world
Democracy and Ethics (DE)	Cultivate student to have public morality, empathy and responsibility, to enhance the understanding of democracy, and to recognize civil rights and duties
Globalization (G)	Cultivate student to respect different cultures, and to think and manage problems with macro global vision

General Education Evaluation for Universities in Taiwan

Evolution of General and Professional Education in Taiwan

Professional / Vocational Training

1980's

Professional / Vocational Training

Gen Ed

WELD SOLID

Professional / Vocational Training

Gen Ed

LATCH MERGE

LITERACY

COMPETENCIES
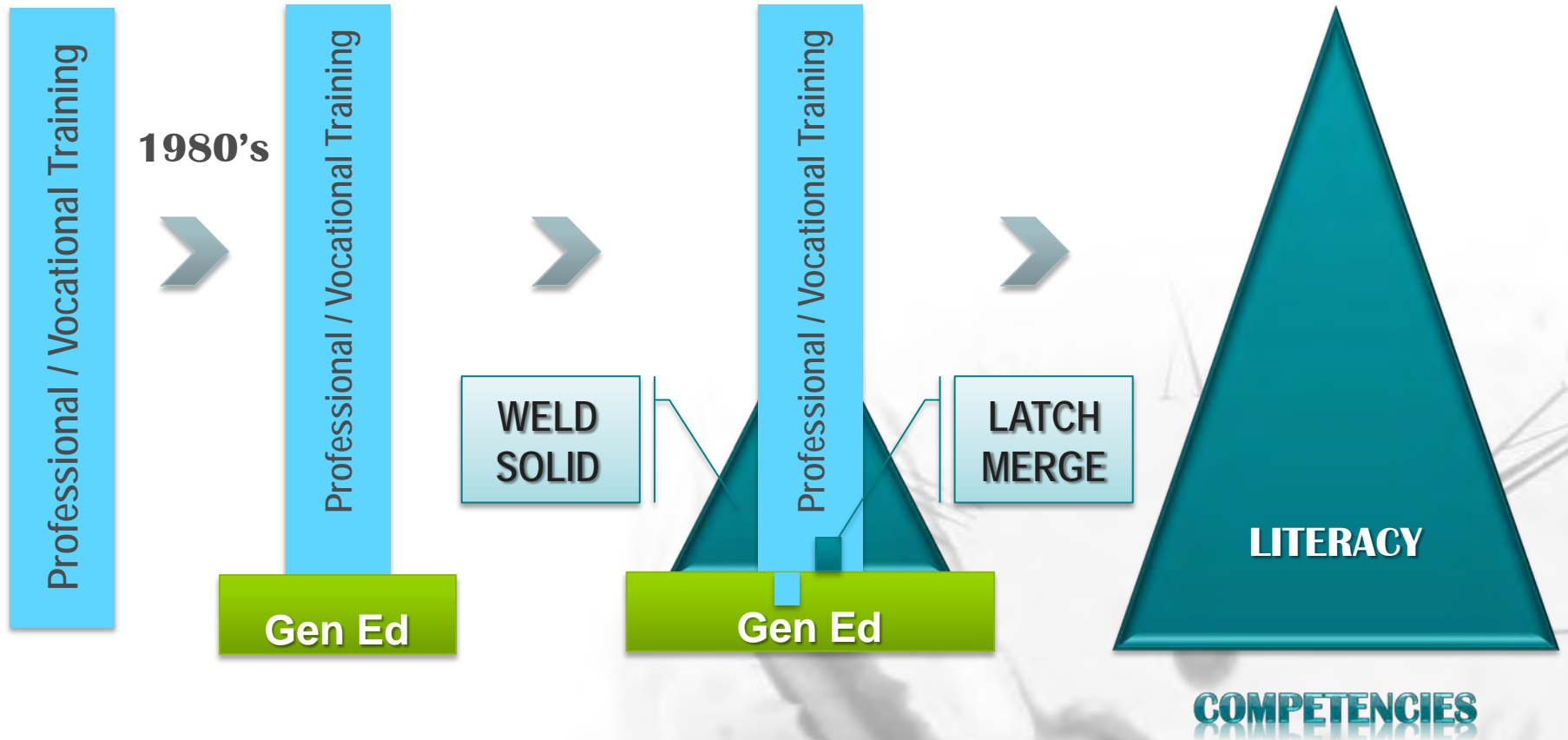
General Subject → **1984** → **1995** → **2003** → **2011**

Gen Ed is only a concept mentioned in some scholars' statement

Gen Ed gained its statutory role due to the regulation issued by the Ministry of Education (MOE) in 1984. The MOE required every university to provide Gen Ed courses, and students should complete 4-6 credit hours in Gen Ed.

The amendment of "University Act" pushed Gen Ed to the next stage.
3 significant effects for Gen Ed:
(1) curriculum autonomy of university.
(2) diversification development.
(3) Gen Ed as the core of university education.

The implementation of "General Education Improvement Project" and "General Education Evaluation Pilot Project"

2 driving forces for the development of Gen Ed:
(1) The Project of Cultivating Citizens' Core Competence.
(2) The General Education Evaluation conducted by MOE

❖ **Initiated in 2003 by the Ministry of Education (MOE)**

❖ **Between March and May of 2004, the project took charge of its first phase of evaluation on 7 major universities that participated in the "Research-Oriented University Integration Project" sponsored by MOE.**

❖ **During the transformation from Teacher Colleges to Normal University in 2004-2005, 9 normal training colleges and universities were evaluated.**

❖ **The third phase of the project started in 2007 and focused on 12 universities that participated in the "Aiming for the Top University and Elite Research Center Development Plan" sponsored by MOE.**

❖ **With a rigorous procedure and an all-around consideration, the evaluation report was meticulously written, providing concrete comments and concluding with grades (from A to D) in each evaluation category.**

Institutions that Were Evaluated in the General Education Evaluation Pilot Project

1st Phase 2003-2004 7 Schools

National Taiwan University (NTU)   National Tsing-Hwa University (NTHU)
National Chao-Tung University (NCTU)   National Cheng-Kung University (NCKU)
National Central University (NCU)   National Yang-Ming University (NYMU)
National Sun Yat-sen University (NSYSU)

2nd Phase 2004-2005 9 Schools

Taipei Municipal Teachers College (TMTC)   National Taichung Teachers College (NTTC)   National Taipei Teachers College (NTTC)   National Taiwan Normal University (NTNU)   National Hualien Teachers College (NHTC) National Pingtung Teachers College (NPTC)   National Kaohsiung Normal University (NKNU)   National Hsinchu Teachers College (NHTC)   National Changhua University of Education (NCUE)

3rd Phase 2007-2008 12 Schools

NTU   NTHU   NCTU   NCKU   NCU   NYMU   NSYSU

National Chung Hsing University (NCHU)   National Taiwan University of Science and Technology (NTUST)   National Chengchi University (NCCU)   Chang Gung University (CGU)   Yuan Ze University (YZU)

The University Institutional Evaluation Project

- 2011
- Embed General Education goals & learning objectives, core competence, curriculum & teaching, and students learning outcomes assessment in the institutional evaluation

The 2nd cycle of Departmental (Program) Evaluation

※Higher Education Programs Receive Mandated Accredited Evaluation Every 5 Years

- 2012~2016
- The General Education evaluation was held together with the 2nd cycle of departmental evaluation
- To thoroughly evaluate the effects and results of general education in universities

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Organizational, Administrative Operations and Self-improvement Mechanism

Rationale, Goals and Features

Learning Resources and Environment

A P
C D

Curriculum Planning and Design

Faculty Qualifications and Instructional Quality
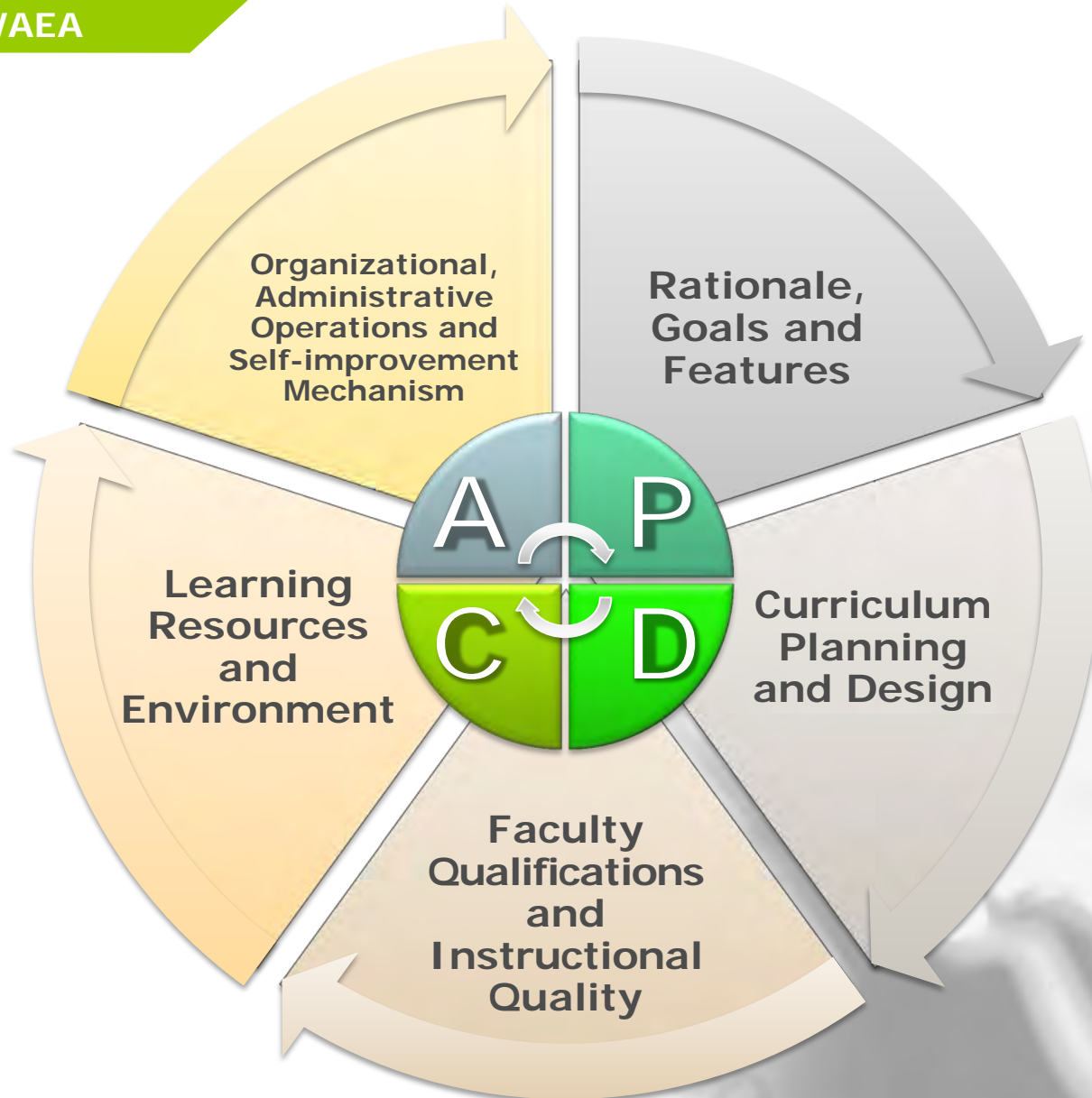
The evaluation criteria for each domain include description, best practice and reference indicators.

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REFERENCE INDICATORS

- What are the rationale and implications of general education? How does that conform with the school mission and objectives at the present stage?

- How does institution plan and implement its features of general education?

- How does general education reconcile with professional education?

- How does institution impel faculty and students to understand the rationale, goals (including the school basic literacy) and features of general education?

- Other indicators related with this domain

REFERENCE INDICATORS

- What are the mechanism and operation of curriculum planning for general education (including required common courses; not including physical education and military training) in accordance with the school rationale, goals and basic literacy of general education?

- How does the design of subject curriculum for general education match with general education curriculum framework?

- How does general education curriculum conform with the school basic literacy or ethical issues concerned by society?

- What are the mechanism and operation of the reviewing of general education courses?

- How do faculty and students show recognition of general education goals?

- Other indicators related with this domain

REFERENCE INDICATORS

- How does the recruitment of teachers satisfy the requirements of general education courses?
- How does the teacher's research performance accord with his/her teaching courses?
- How does teachers prepare their courses and improve their instructional design and pedagogies in accordance with the teaching objectives and basic literacy that the course aims to cultivate?
- How does teachers assess learning outcomes in accordance with the teaching objectives and basic literacy that the course aims to cultivate?
- What are the mechanism and operation of faculty development in general education?
- What is the mechanism of student learning outcomes assessment in accordance with the rationale of general education and school basic literacy?
- Other indicators related with this domain

REFERENCE INDICATORS

- How do the learning resources (including space, funding, equipment, teaching assistants and etc.) meet the requirements of general education curriculum and teaching?

- How does institution respond with general education curriculum requirements to create a diverse learning environment (such as hidden curriculum)?

- How does institution respond with general education curriculum requirements to develop diverse learning activities (such as artistic and cultural activities)?

- What is the mechanism for student learning support of general education?

- Other indicators related with this domain

REFERENCE INDICATORS

- What is the organizational position of the general education department?
- How does the institution's administrative system support the operation of general education?
- What are the organizational structure and human resource management of the general education department?
- What are the administrative operations of the general education department?
- How does institution improve the quality of general education in accordance with school self-evaluation mechanism?
- How do the administrative operations of the general education department improve the quality of curriculum planning, teaching and learning?
- How does institution collect opinions and feedback from alumni to improve the quality of general education?
- Other indicators related with this domain

Evaluation Results	Follow-ups & Improvement
Pass	Institutions submit their self-improvement plan and outcomes performance to MOE for future reference.
Pass with Conditions	Institutions submit their self-improvement plan and outcomes, and should be observed in the follow-up evaluation. The follow-up evaluation focuses on the failures and suggestions mentioned in the evaluation results.
Fail	Institutions submit their self-improvement plan and outcomes, and should be re-evaluated. The evaluation process should be initiated again, and institutions have to provide self-evaluation report according to the evaluation criteria.

❖ **After passing the evaluation, Institutions will receive the certificate of accreditation issued by MOE.**
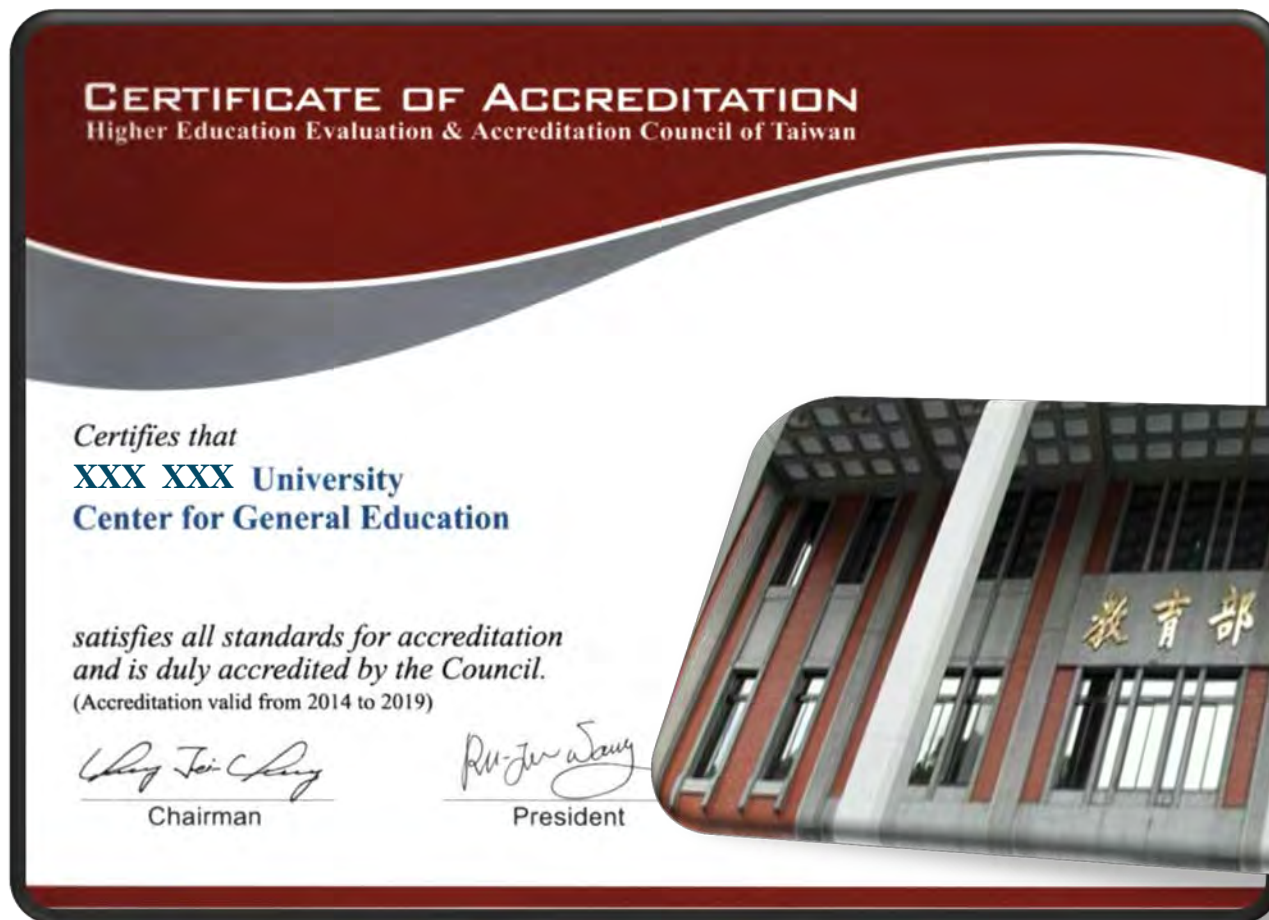
CERTIFICATE OF ACCREDITATION
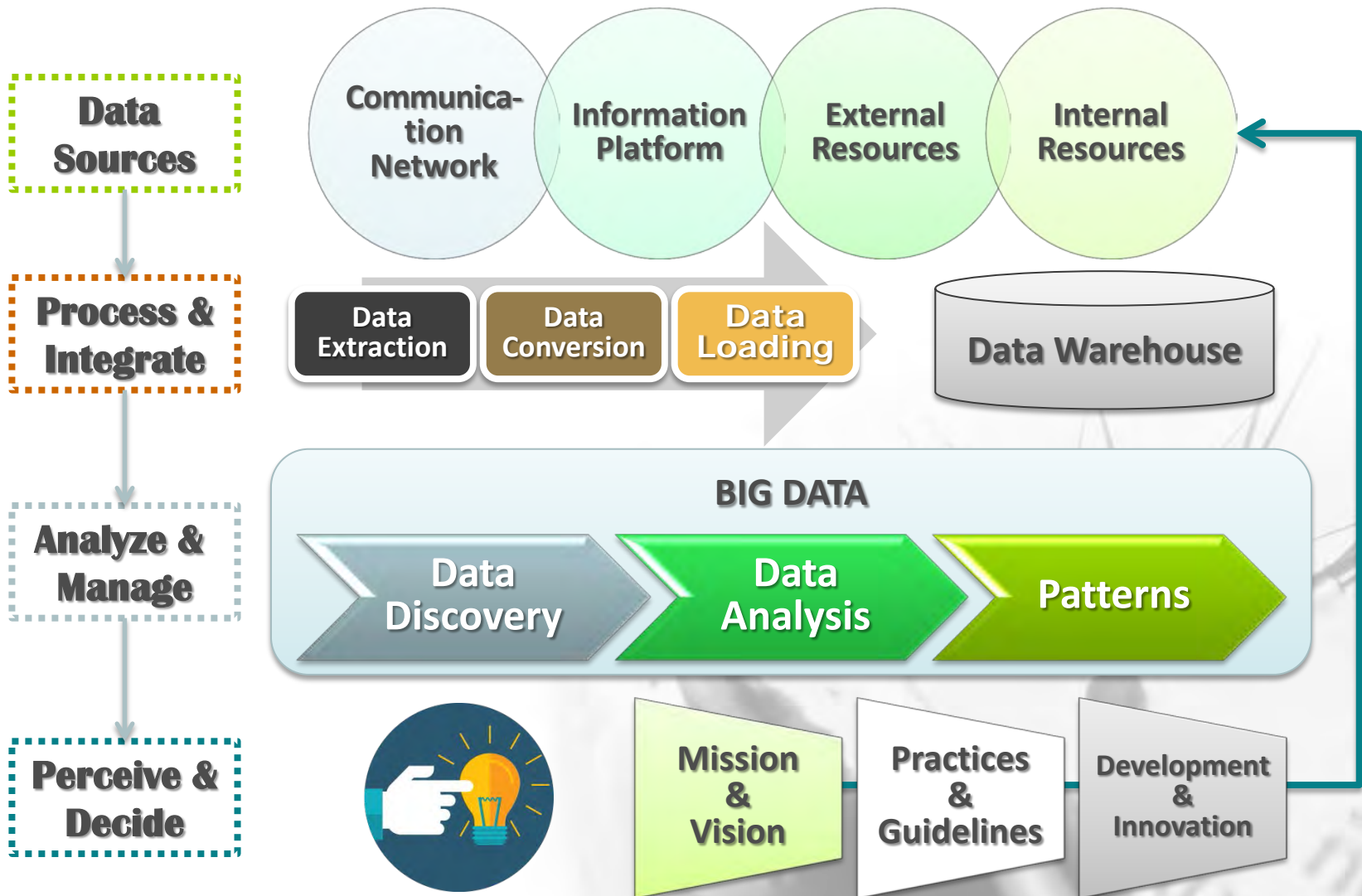Higher Education Evaluation & Accreditation Council of Taiwan

Certifies that
XXX XXX University
Center for General Education

satisfies all standards for accreditation
and is duly accredited by the Council.
(Accreditation valid from 2014 to 2019)

Chairman

President

Learning Outcomes Assessment in the Big Data Era

Data Sources

Process & Integrate

Analyze & Manage

Perceive & Decide

Communication Network | Information Platform | External Resources | Internal Resources

Data Extraction | Data Conversion | Data Loading

Data Warehouse

BIG DATA

Data Discovery → Data Analysis → Patterns

Mission & Vision | Practices & Guidelines | Development & Innovation

IR Transforms Data to Knowledge
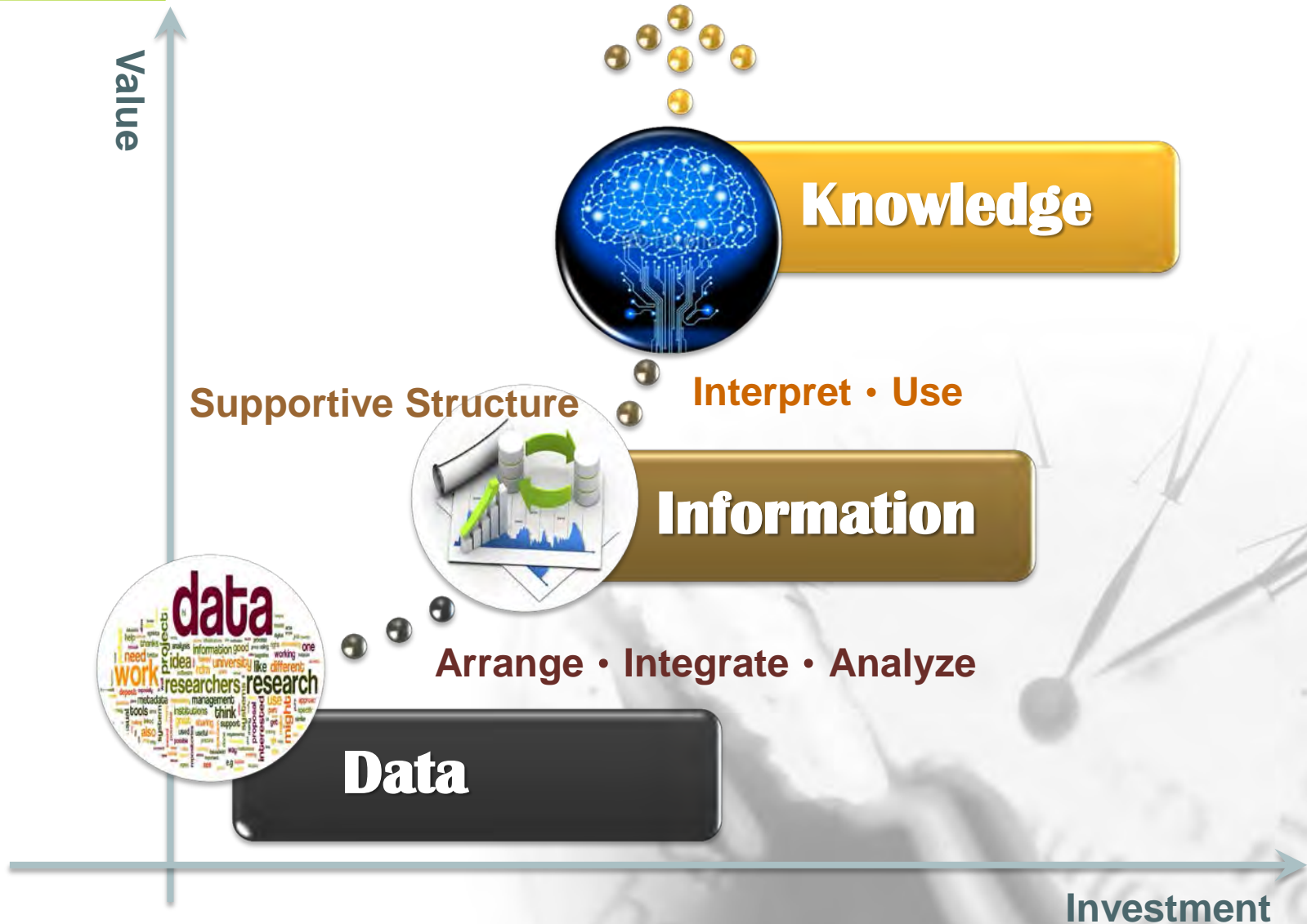
TWAEA

Value

Knowledge

Interpret · Use

Supportive Structure

Information

Arrange · Integrate · Analyze

Data

Investment

48

TWAEA

University X

University Y

University Z

Universities...

Data

Data

Data

Data
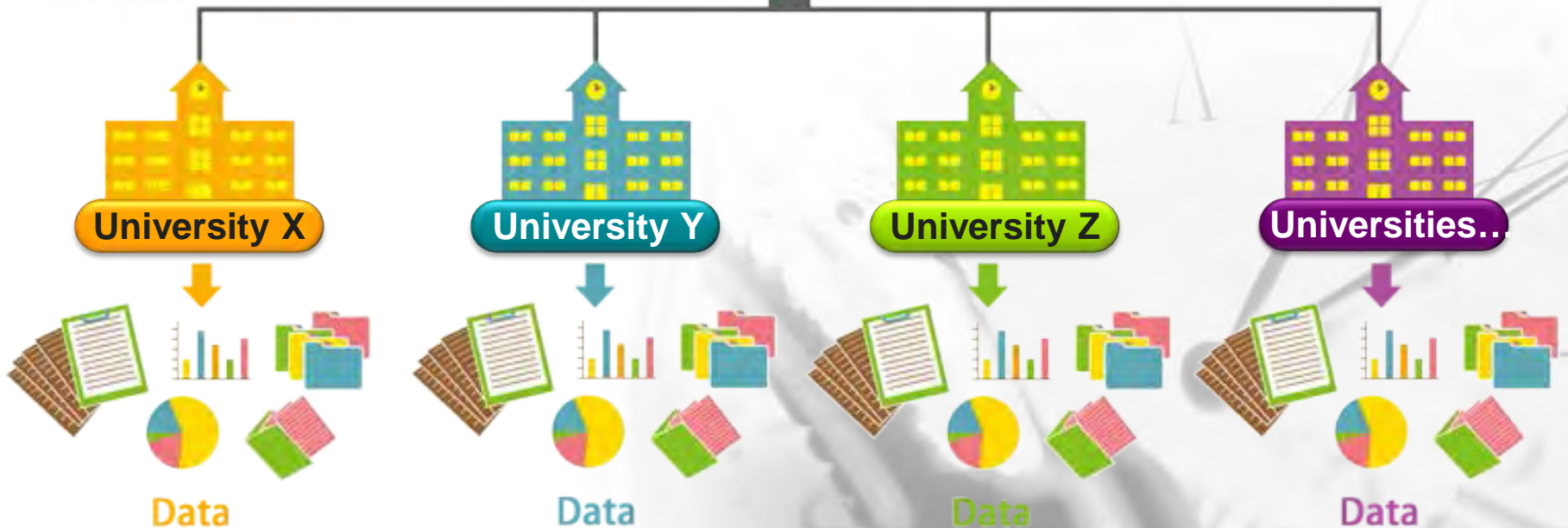
TWAEA

Institution Administration Improvement
Management Decision

Institution Report
Policy Analysis

Data Analysis
Data Warehouse

Collect internal and external information effectively
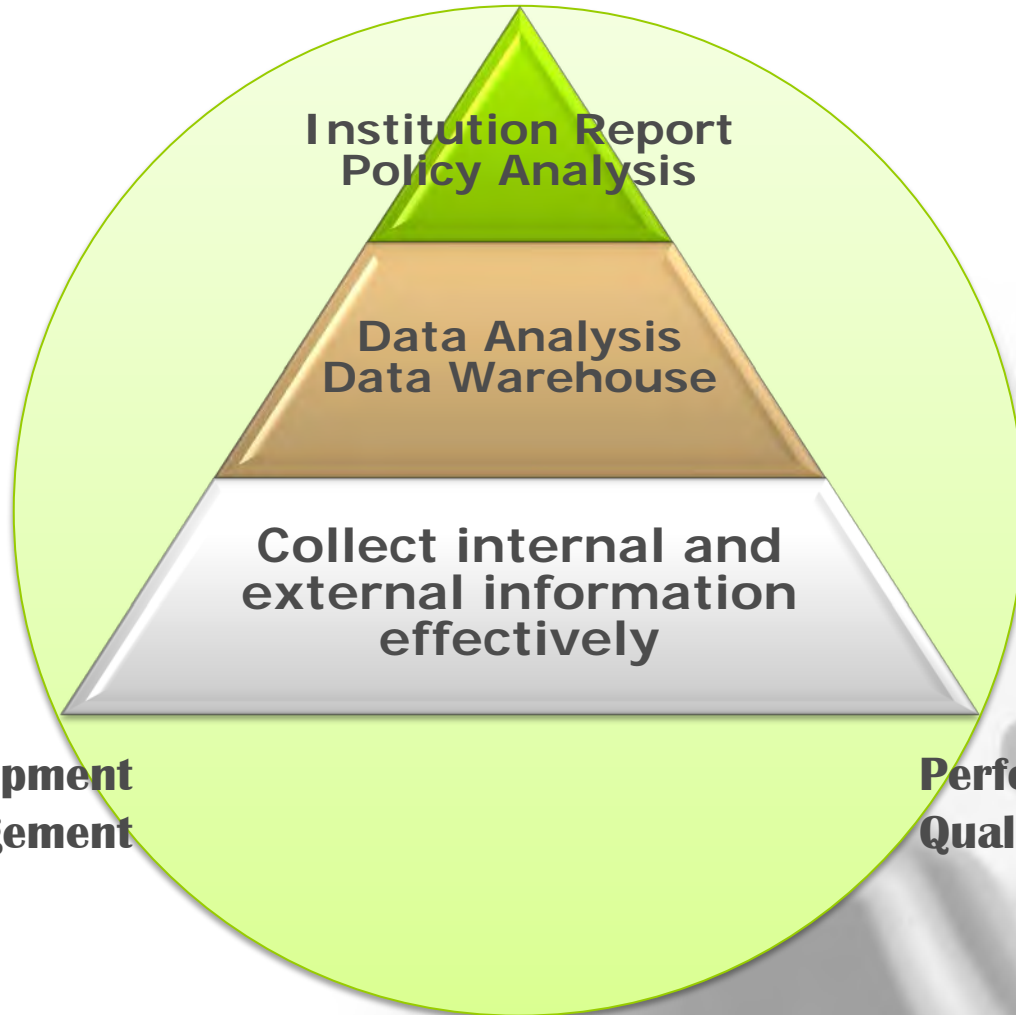
Insight for Development
Financial Management

Performance Evaluation
Quality Control

Assessment and Evaluation Activities by Offices of Institutional Research (OIR)

	Percentage of Offices Reporting		
	Activity Centralized in IR Office	IR Activity Shared with Others	Activity Not in IR
Supplying information and analysis for institutional self-study and accreditation	38%	**55%**	7%
Attrition/retention/graduation analysis	**66%**	25%	9%
Studies of student satisfaction/opinion	**58%**	28%	13%
Studies of student academic performance/progress	**46%**	37%	17%
Studies of student engagement	**59%**	22%	20%
Participating in evaluation/review of academic programs	19%	**48%**	33%
Coordinating measurement of student learning outcomes	24%	**41%**	36%
Assessment/measurement of student general education knowledge/growth	21%	**41%**	38%

Source: Abridged from Volkwein, J. Fredericks. (2011). *Gaining Ground: The Role of Institutional Research in Assessing Student Outcomes and Demonstrating Institutional Effectiveness.*

Competitive Environment
Politics and Economics
Social Development Trends
Globalization
……
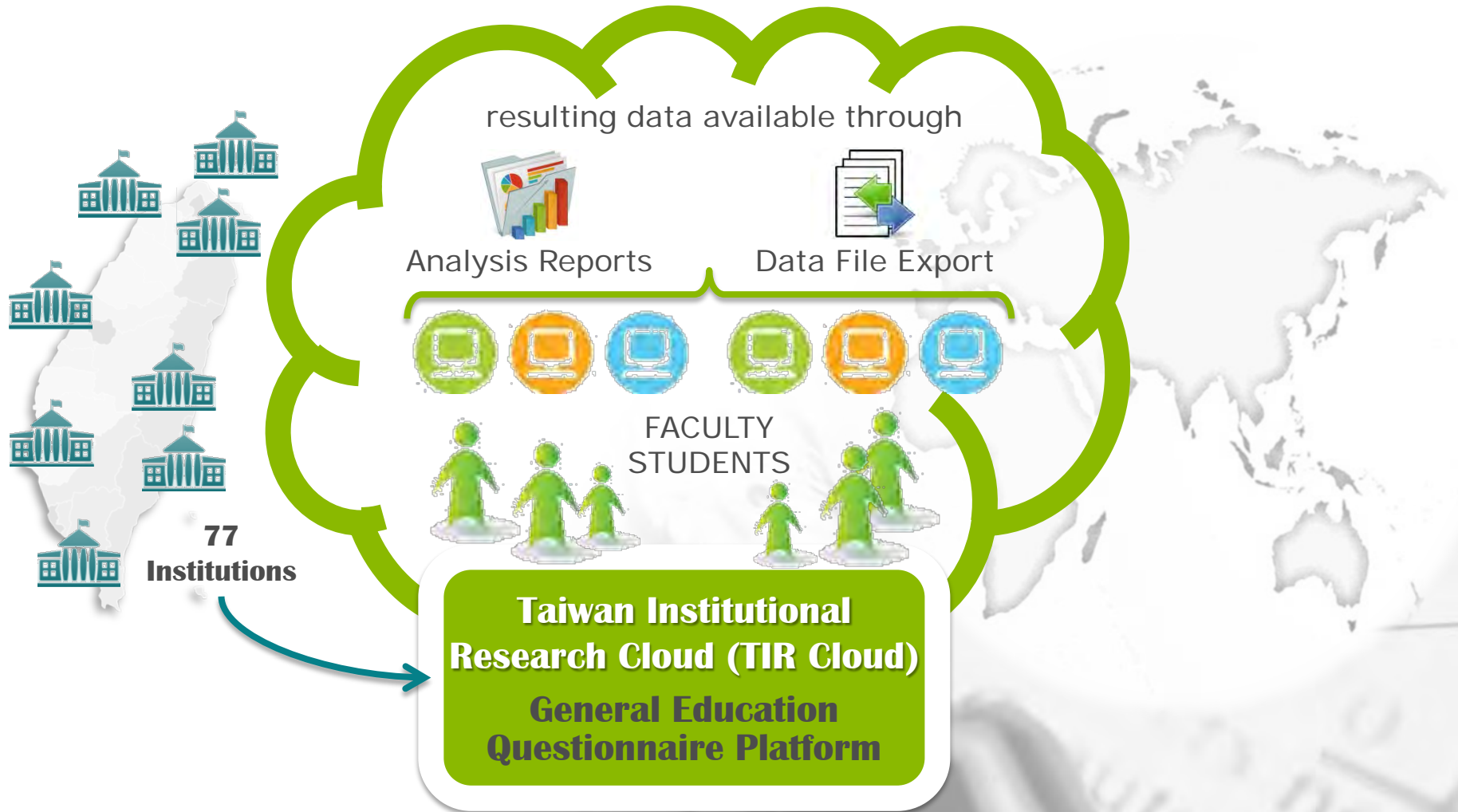
IR

Institution Report
Policy Analysis

Data Analysis
Data Warehouse

Collect internal and external information effectively

Vision

Mission

Policy

Features

Position → School Development Plan

Goals → KPIs → Learning Development → Performance Evaluation → Continuous Control

resulting data available through

Analysis Reports   Data File Export

FACULTY
STUDENTS

77 Institutions

Taiwan Institutional Research Cloud (TIR Cloud)

General Education Questionnaire Platform

6 Conclusion & Perspectives

	FROM	TO
Prioritizing quality learning	• Faculty teaching	Student learning
Building effective general education pathways	• Distribution requirements in first two years	4-year path integrated with major
Documenting student learning outcomes	• Transcripts affirm credit hours earned	E-portfolios document, accomplishment and proficiencies
Expanding experiential education	• Optional, occasional	Required, sustained, assessed

To agree upon general education learning outcomes, and to ensure the assessment work is learner-centered

Getting people to think about learning collectively, beyond individual courses

To identify assessment approaches that can meet the needs of different fields

To analyze problem space qualitatively before solving

To integrate general education and major-specific requirements in a meaningful way

To motivate students, faculty and staff to engage in learning outcomes assessment

Data is the key to drive assessment and improvement. The biggest challenge is to develop tools to assess appropriately.

Every morning in Africa a gazelle wakes up. It knows it must move faster than the lion or it will not survive.

Every morning a lion wakes up and it knows it must move faster than the slowest gazelle or it will starve.

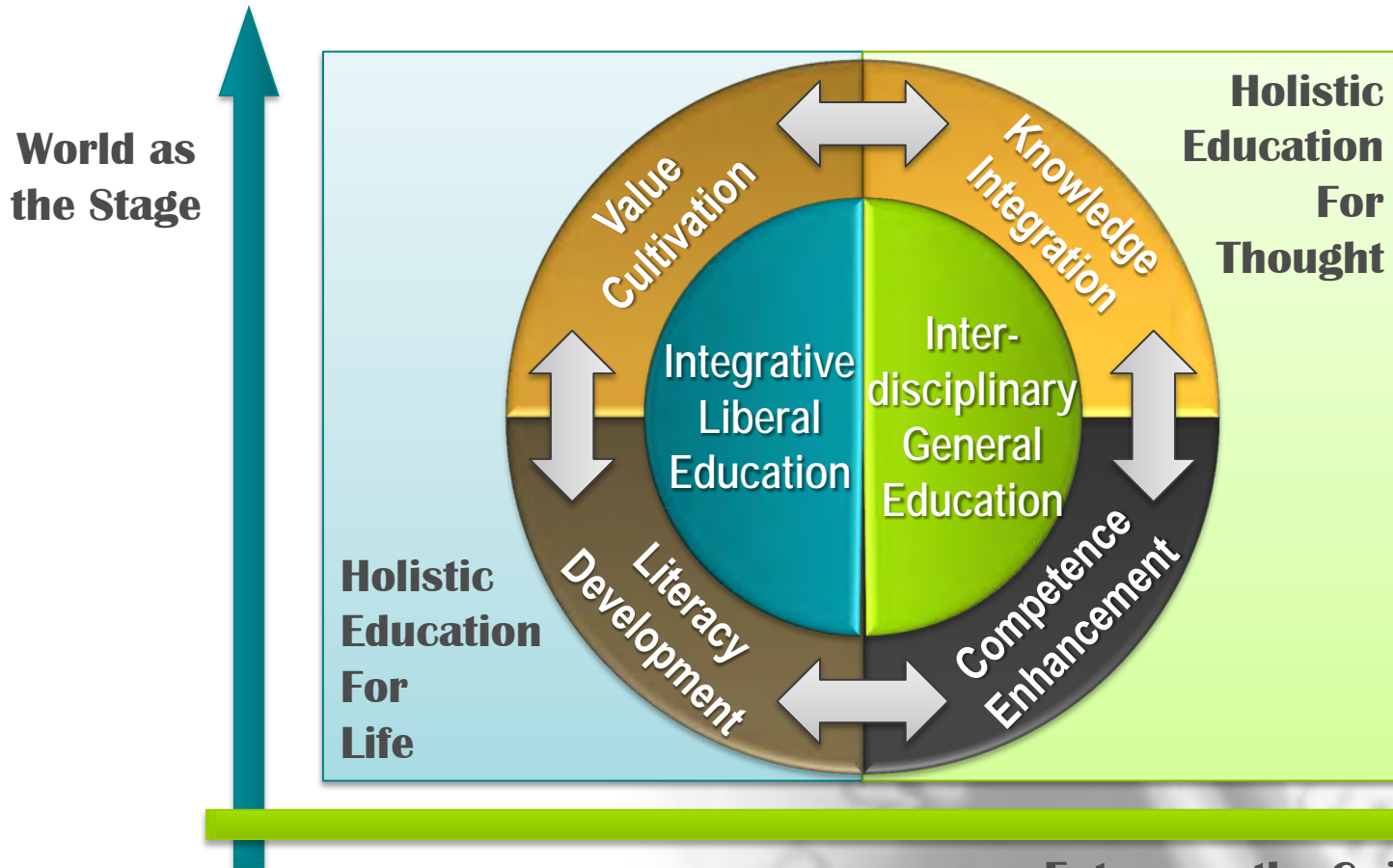
It doesn't matter if you are the lion or the gazelle,

when the sun comes up, you better be moving.

Roger Bannister

What's Next ?

❖**From Assessment of General Education Courses
→ What a Student Knows at Graduation**

World as the Stage

Holistic Education For Thought

Holistic Education For Life

Value Cultivation

Knowledge Integration

Integrative Liberal Education

Inter-disciplinary General Education

Literacy Development

Competence Enhancement

Beyond the Assessment

TWAEA

Capturing the Gen Ed Learning Outcomes that We Value and Want to Incentivize

❖ Allen, Mary J. (2006). *Assessing General Education Programs.*

❖ Association of American Colleges & Universities. *VALUE Rubric Development Project*. Retrieved from https://www.aacu.org/value/rubrics

❖ Gaston, Paul L. (2015). *General Education Transformed: How We Can, Why We Must*.

❖ Humphreys, Debra. (2016). *Trends in General Education and Assessment Design*. AAC&U Network for Academic Renewal Conference on General Education and Assessment.

❖ Lee, Lung-Sheng, Wei, Yen-Shun, & Wang, Li-Yun. (2013). *Higher Education Institutional and Program Evaluations in Taiwan and the Emerging Roles of Higher Education Evaluation and Accreditation Council of Taiwan*. Retrieved from http://files.eric.ed.gov/fulltext/ED541269.pdf

❖ Lin, Chung-I. (2014). *A Belief History of Taiwan General Education*. Chang Gung Journal of Humanities and Social Sciences, 7(2), 191-253.

❖ Lin, Mei-Jen, Lin, Pang-Chieh, Huang, Kwo-Yann, & Tsai, Chi-Ming. (2005). *The Development and Establishment of the Assessment Criteria for General Education of Premium Global Citizen*.

❖ Lin, Mei-Chin. (2013). *The Relationships in Curriculum Designs of General Education and Whole-person Education in Higher Education*.

❖ Lin, Shio Jean. (2012). *Cultivating Citizens' Core Competence*. Retrieved from http://hss.edu.tw/wSite/public/Attachment/f1350093036827.pdf

❖ Liu, Jin-Yuan, Tsai, Shun-Mei, Tang, Wen-Huei, & Yeh, Jane Yeh. (2006). *On the Analysis of the Evaluation of General Education in Research-Oriented Universities and Discussion on the Improvement Measures*. Journal of General Education: Concept & Practice, 1(1), 261-301.

❖ Rhodes, Terrel L., & Finley, Ashley. (2013). *Using the VALUE Rubrics for Improvement of Learning and Authentic Assessment*.

❖ Wagner, Tony. *Tony Wagner's Seven Survival Skills as defined by business leaders in their own words*. Retrieved from http://www.tonywagner.com/7-survival-skills