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SUSTAINABILITY AND THE TRANSFORMED CURRICULUM

STADIO Academic Conference

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INTRODUCTION

Global emphasis on sustainability, linked to the Sustainable Development Goals (SDGs)

Higher Education Institutions pivotal

"If not the universities, then who?

If not now, then when?"

Victoria Galan-Muros, Chief of Research and Analysis UNESCO IESALC

THEMES FOR TODAY

How is sustainability incorporated into curricula?

What does transformation mean in an educational context?

What is the impact on students, faculty and society?

FRAMEWORKS FOR TRANSFORMED CURRICULA TOWARDS SUSTAINABILITY

1. Education for sustainable development (ESD) for 2030 – relevant parts:

- SDG 4.7.1 monitoring – global citizenship education
- Building capacity in educators
- Real problem solving and life-long learning for students
- Sustainability content and evaluation of knowledge, attitudes and behaviors

FRAMEWORKS FOR TRANSFORMED CURRICULA TOWARDS SUSTAINABILITY (CONT.)

2. **Association for the Advancement of Sustainability in Higher Education (AASHE) – Community of Practice (COP): Scaling up Sustainability Across the Curriculum**

   Teaching sustainability competencies across the disciplines – A guide for instructors

Systems Thinking Competency
Anticipatory or Futures Thinking Competency
Normative or Values Thinking Competency
Strategic Thinking Competency
Collaboration or Interpersonal Thinking Competency
Critical Thinking Competency
Self-awareness or Intrapersonal Competency
Integrated Problem-solving Competency
Implementation Competency

FRAMEWORKS FOR TRANSFORMED CURRICULA TOWARDS SUSTAINABILITY (CONT.)

3. Transformative learning theory (Jack Mezirow)

Critical reflection, discourse and experience are required to foster personal and social transformation

CURRICULUM TRANSFORMATION

- Drivers of change
- Different approaches
- Case studies
  - University of British Columbia (Canada)
  - University of Gothenburg (Sweden)
  - Arizona State University (USA)
  - Universidad de los Andes (Colombia)
  - TERI School of Advanced Studies (India)

PEDAGOGICAL APPROACHES

- Interdisciplinary learning
- Active and experiential learning
- Problem-Based learning

CHALLENGES IN TRANSFORMING THE CURRICULUM

- Institutional resistance
- Assessment and evaluation

IMPACT ON STUDENTS, FACULTY AND SOCIETY

Graduate attributes

Faculty development

Monitoring, measuring and sharing successes

GLOBAL AND LOCAL PERSPECTIVES

International trends

South African approaches

FUTURE DIRECTIONS

Sustainability leadership

Lifelong learning

CONCLUSION

Curriculum transformation can support sustainability goals!

Call to action!

RESOURCES

- UNESCO ESD Framework:

https://webarchive.unesco.org/web/20231008000337/https://en.unesco.org/themes/education-sustainable-development/toolbox https://unesdoc.unesco.org/ark:/48223/pf0000374802

- Teaching sustainability competencies across the disciplines – AAHSE

https://hub.aashe.org/browse/publication/28588/Teaching-Sustainability-Competencies-across-the-Disciplines-A-Guide-for-Instructors#:~:text=Support%20instructors%20to%20integrate%20sustainability%20competencies%20into%20their%20courses

- Transformative Learning Theory

Mezirow, J., 1991. Transformative Dimensions of Adult Learning. San Francisco: Jossey-Bass.

Cranton, P., 1994. Understanding and Promoting Transformative Learning: A Guide for Educators of Adults. San Francisco: Jossey-Bass.

Mezirow, J. and Associates (eds.), 2000. Learning as Transformation: Critical Perspectives on a Theory in Progress. San Francisco: Jossey-Bass.

- The Piedmont-Ponderosa Model

Barlett, P.F. and Chase, G.W., 2012. Curricular Innovation for Sustainability: The Piedmont/Ponderosa Model of Faculty Development. Liberal Education, v98 n4 p14-21 Fall 2012.

RESOURCES

- Pedagogical approaches

1. Interdisciplinary Learning:

Klein, J.T., 1990. Interdisciplinarity: History, Theory, and Practice. Detroit: Wayne State University Press.

Jacobs, H.H., 1989. Interdisciplinary Curriculum: Design and Implementation. Alexandria: Association for Supervision and Curriculum Development.

Frodeman, R., Klein, J.T. and Mitcham, C. (eds.), 2017. The Oxford Handbook of Interdisciplinarity. 2nd ed. Oxford: Oxford University Press.

2. Active and Experiential Learning:

Kolb, D.A., 1984. Experiential Learning: Experience as the Source of Learning and Development. Englewood Cliffs: Prentice-Hall.

Freire, P., 1970. Pedagogy of the Oppressed. New York: Continuum.

Capra, F., 2004. Teaching for Transformation: Philosophy of Design and Learning. Berkeley: Center for Ecoliteracy.

3. Problem-Based Learning (PBL):

Barrows, H.S. and Tamblyn, R.M., 1980. Problem-Based Learning: An Approach to Medical Education. New York: Springer.

Boud, D. and Feletti, G. (eds.), 1991. The Challenge of Problem-Based Learning. London: Kogan Page.

Savin-Baden, M., 2000. Problem-Based Learning in Higher Education: Untold Stories. Buckingham: Open University Press.

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