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SUSTAINABILITY AND CREATIVE EDUCATION: DEVELOPING A SUSTAINABILITY CULTURE OF HIGHER EDUCATION IN CHINA

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ABSTRACT

Sustainable development and creative thinking have become central aspects of Higher Education in today's multi-disciplinary world. By considering the balance between learning and teaching priorities, the Design Academy, Sichuan Fine Arts Institute and School of Design, Jiangnan University incorporate the author's newly evolved teaching methodology — 3A: 'Acknowledgement, Action and Accountability' model of sustainable development and creativity — into its taught programs at all levels. The 3A model is a formative learning method for building capability of individuals to create changes toward sustainable development. This paper first defines the 3A design teaching process in the context of sustainability and sustainable development. Acknowledgment is the appreciation and recognition of the importance and quality of sustainability in the face of global challenges, with a particular focus on team effort, co-design and sharing findings and practices. Action is the establishment of design strategic and action plans that consider not only the importance of intents, goals, affordable and reachable resources, but also a clear roadmap for achieving maximum efficiency when tackling the most challenging tasks. Accountability deals with the growing understanding of the benefits of working together to tackle global challenges such as Corporate Social Responsibility (CSR) practices. Based on evidences from the feedback and evaluations of action research, the research team plans to further refine the 3A design teaching methodology and create a model that can be implemented and scaled effectively with collaborative partners from community, business and local government.

Key Words: sustainable development, design methodology, creative thinking, higher education

1. INTRODUCTION - THE ROLE OF UNIVERSITIES

Issues of creativity and sustainable development have been dissociated since the Industrial Revolution in the West over two hundred years ago. While many designers were preoccupied by creating marketable products rather than saving the planet in the past, an increasing number has begun to argue that sustainable development cannot be avoided any longer. Thus, a sustainable future for the planet is something that will only happen by design (To Last, Signed magazine, HKDI launch issue p42). Nowadays, to be or not to be sustainable is not an option but is one of the imperative goals to foster sustainable development in this global world. Education in design is prominent in providing responsive training for students who are going to engage the creative industries. Countries may vary in how they support design or creative learning with immersion programmes in sustainable development. In 2009, one of the researchers who was designated Head of the Department of Foundation Studies, at Hong Kong Design Institute (HKDI) has identified a need to question the role of higher education in promoting and educating about sustainable development.

Accordingly, the Reform of Design Education Foundation forum, hosted by HKDI to explore how higher diploma programmes can incorporate sustainability in their learning approach. Since 2017, the Design Academy, University of Sichuan Fine Arts Institute set out an aspirational goal of sustainable development learning and teaching for its design major programme for both undergraduates and post-graduates. The goal is to 'Provide a vision and missions to design learners on a sustainable development pathway to meet and enhance the needs of the present and to propel the greatest opportunity for improving a sustainable life for future generations.' To follow up on the mission, we asked: "where should we start?", "what needs to be reinvented?", and "what are the appropriate learning and teaching approaches? "

In this paper, we established an interaction learning environment that lead to better understanding and more appreciation of sustainable development contexts, especially the connectedness and impacts of the 17 Sustainable Development Goals (SDGs). Aiming to end poverty, promote prosperity and people's well-being by 2030. To greater empowerment of students' engagement, we invited students deep-heartedly involved, collaborated with community more directly, and facilitated activities for open discussion and ideas exchange. The Sustainable Development Goals are to be achieved and mindfully monitored. It is regarded that achieving the SDGs would transform the status of human development (The 2015 Human Development Report, A Future the Planet Can Accommodate, Syke Policy Brief, 2018).

To reach these ambitious goals, in 2018, a new design methodology, namely, the 3A: Acknowledgment, Action and Accountability was put in place, comprehending the process of sustainable development in line with their local objectives and projects. By reinventing higher education toward Sustainable Development and establishing a sustainable learning culture for students aged 17 to 23 years in Hong Kong and China, we want to enable all members of society to access the benefits of sustainable development of a globalizing world (UNESCO Bangkok, 2008).

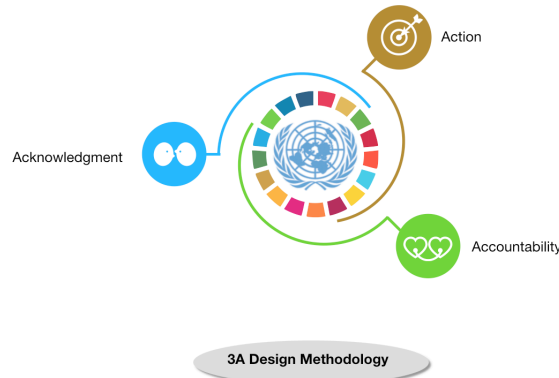
2. WHAT ARE THE SUSTAINABLE DEVELOPMENT GOALS?

In 2012, the Sustainable Development Goals (SDGs), also known as the Global Goals, were born at the United Nations Conference on Sustainable Development in Rio de Janeiro , built on the success of the Millennium Development Goals (MDGs) which started a global effort in 2000 to tackle the indignity of poverty. The SDGs is a universal call to action to end poverty, to protect the planet and to ensure that all people enjoy peace and prosperity according to the new sustainable development agenda while protecting the environment by 2030. The objective is to produce a set of universal goals that meet the urgent environmental, political and economic challenges facing our world. Yet, the questions of how designers with sustainability capacity can be nurtured and what the challenges of designers in the 21st Century and future are - require immediate responses from design education disciplines.

There is an urgent need for people with an interdisciplinary, multidisciplinary and problem-solving capability because learning for sustainability involves how to make decisions that consider the long-term future of the economy, ecology and equity of all communities (Glasser, 2004, Y. Y. Lam et al, 2012). All of these issues have a major bearing on curricula and the processes of learning in tertiary and higher education. Learning for this purpose is rather than a traditional, and often over- specialised, scientific or technical competence (UNESCO, 2002). To achieve these goals, concerted efforts are required; it is not limited to students but also for all teachers, administrators, and educational planners, as well as educators in other sectors (UNSD, Agenda 21, 1992; Jay, 2004).

The SDGs encompassing a broad range of issues, are bold commitments to tackle some of the more pressing challenges facing the world today (UNESCO Bangkok, 2008) . All 17 Goals are interconnected, meaning success in one area affects success in other areas. Dealing with the threat of climate change impacts how we manage our fragile natural resources; achieving gender equality or better health can help eradicate poverty, while fostering peace and inclusive societies could reduce inequalities and help economies prosper.

3. THE 3A TEACHING METHODOLOGY ON DESIGN WITH ACKNOWLEDGMENT, ACTION & ACCOUNTABILITY FOR ‘SUSTAINABLE DEVELOPMENT GOALS’ PROJECTS



[Figure 1] The 3A Design Methodology

A new design methodology, namely, the 3A: Acknowledgment, Action and Accountability was put in place since 2018. Goals for sustainable development is at the heart of the 3A design methodology, a commitment to transform the sustainable development learning culture and to improve the living conditions and providing opportunities for every individual in line with their local objectives and contexts. Moreover, the 3A design methodology intends to enhance and extend students’ thinking capability in identifying and promoting inclusive sustainable solutions on a sustainable development pathway, while acknowledging risk and resilience, and taking actions to advance prosperity and well-being, as well as addressing issues of accountability and social responsibility.

Acknowledgment, Action and Accountability are the central paradigms of the 3A design methodology. These paradigms have been developed in an interconnected manner to help trainers and trainees prepare projects of sustainable development and measure their impacts.

Acknowledgment: defined as the expression or display of the appreciation for an individual, team or leader. It is confirmed by a Globoforce research study in 2013 which indicates that 89 percent of people is more motivated when being told what they are doing right rather than being told that they are doing wrong, and nearly 80 percent of people looks for this recognition to be given at the time of a desirable activity. Taking a broader view, acknowledgments of others’ feelings may have an important role to play in the resolution of conflicts in work; all of which contribute to the richness of human lives.

Action: taking action is to encourage the formulation of action plans, agendas and roadmap to monitor timelines and progress on every task. Without specific timeframes and deadlines, work can potentially expand to fill the time allotted, and some tasks may never get completed in the worst case. Educating with a new approach of time management will enhance students’ competence in distribution of duties, coordination with co-creating tasks and development of targeted actions.

Accountability: our research argues that students can make a lot of progress just by creating a design that makes people think about sustainability and accountability. As Bob Proctor remarks ‘Accountability is the glue that ties commitment to the result’. Accountability will enable establishment of actionable goals for long-term development and investments in sustainability. It also creates sustainable mentality, an effective and efficient method that forces us to shift our mentality. We are accountable to consider the impact of trends in the changing world of creative education development (Y. Y. Lam, in DESIS Conference 2016).



Design Team: Helen & LenLen (Master degree in Product Design)

[Figure 2] Selected Student Project illustrates the implementation of 3A design methodology approach : Sustainable Design Workshop, Design Academy, Sichuan Fine Arts Institute

4. RESEARCH METHOD

This paper presents the teaching approach and learning process through a teaching case. The case involves a group of students designing a product or a service for a group of real people in a real or simulated situation with a commitment to design for sustainability and social innovation. Action research is the central method used in this research. The data were drawn from feedback, face-to-face interviews, project review meetings and focus group discussions of direct stakeholders (learners, trainers, users and policy makers). A lesser extent from websites, conferences, and presentations, because the common nature of these methods can elicit rich, detailed material and firsthand information (Stewart et al. 1990; Lofland, 1995; Frechtling et al. 1997). And these methods are also the centralisation of human interaction for knowledge production (Kvale, 1996). Data analysis was grounded in theory with reference to current literature on sustainability, sustainable development and government policy.

5. CONCLUSION

The research major findings demonstrated that capabilities to take good practice of the '3A' design methodology with sustainability concern are the followings :

- 1). Study mindfully and better understanding the importance of sustainable development through the acknowledgment of the 17 Sustainable Development Goals not limited to its contents but also its contexts of case studies from different countries.
- 2). Design for sustainability is the international trend. It is found that most young participants is the consumers' purchasing and spending patterns which could be an important point of leverage based on the positive impact of Millennials' lifestyle trends. (The Positive Impact of Millennials' Lifestyle Trends 2018)
- 3). Major opportunities and challenges were identified from the research components of the project. For instance, we observed from our feedbacks that the perceived urgency of adopting a more sustainable lifestyle was low even among learners in higher education level. Our analysis also showed that understanding the diverse needs and interests of various stakeholders could assist us to devise appropriate communication strategies accordingly.
- 4). Participants were inspired by learning and creating in a new way. Designers should use their abilities to the utmost for creating design to help acknowledge, appreciate and propel sustainable learning culture, societies and industries.
- 5). Learners were encouraged to create designs with the lowest possible environmental impacts by minimizing resource and energy consumption throughout the life cycle of products, structures, services and systems. Equally important is the selection of local materials.
- 6). A visionary education approach for sustainability education, by its nature learning design is exciting, powerful and joyful while we could use capability building to manage challenges, pressing issues of sustainability.
- 7). Establish excellent networks and partnerships with a broader range of sectors to gain legitimacy and project an image of accountability regarding as a new knowledge of this design methodology.
- 8). 3A design methodology strengthens students' commitment and enthusiasm for creation. Students are eagerly to learn new things, meet new people and create new design to stimulate people interest in sustainability.
- 9). Co-creating culture has been well transformed. Students are genuinely to take up the social and cultural responsibility with a wider perspective starting from the society to the community, designers to users and design to production.

3A design methodology incorporates with divergent and convergent thinking can instill a positive energy in design education to encourage learners involved to acknowledge, action and be accountable of the beauty of our mother earth (Y. Y. Lam et al. 2015). Toward the end, both involved parties become transformed into local issues as appropriate.

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