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Arrangement



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Manual of best practices for a blended flexible training activity in architecture for higher education institutions



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This volume returns the results of the Intellectual Output 03 of the research project "ArchéA. Architectural European Medium-sized City Arrangement", with the aim of analyzing and restating the state of the art achieved in the field of flexible mixed training in architecture, strongly encouraged by the emergency period of the Covid-19 pandemic. The result is a collection of good practices carried out internally and externally to the ArchéA partner network, in the context of higher education institutions, made possible by new virtual tools capable of mediating teaching and mixed and flexible learning around the disciplines related to the project.

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Manual of best practices for a blended flexible training activity in architecture for higher education institutions

edited by Enrico Prandi and Paolo Strina

Analisis of the Best Practices

Call for papers

Maria Panta, Joseph Agyei Danquah
**Changing the Curriculum in Architectural Education: The
 Case of the Trans-African Dialogues Series.**

German University in Cairo, Egypt
 CSIR-Building and Road Research Institute, Ghana

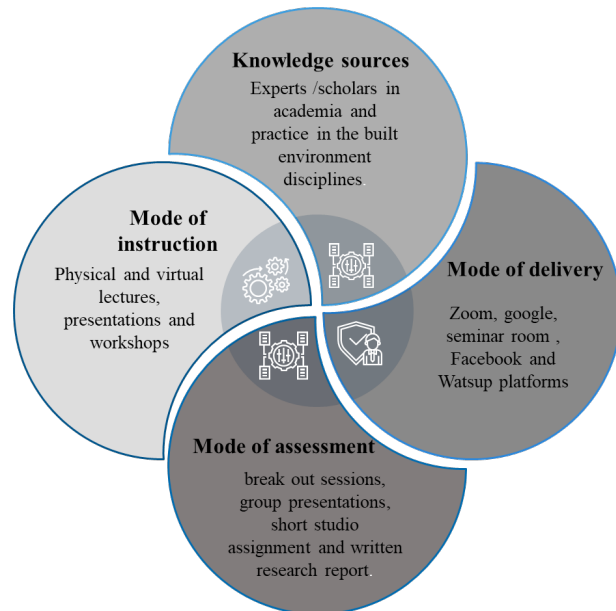
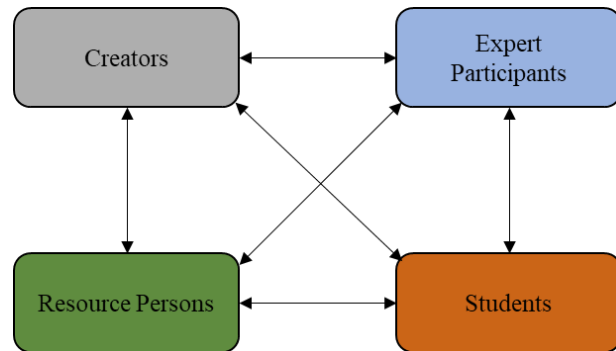


Fig.01 An Illustration of the Collaborative and Engagement network amongst Classified Participants (Authors, 2021)
Fig.02 The transdisciplinary blended learning system adopted for the module (Authors, 2021)

Introduction

The paper describes the authors' direct experience with an elective module entitled, *Trans-African Dialogues: Drawing on existing knowledge, strengths, skills, resources & innovation*. It offers a framework on how this module was initiated, developed and delivered in the faculty of Architecture and Urban Design at the German University in Cairo (GUC) during the Spring semester 2021. The module, intended specifically for the 10th semester architecture students with a view to inform their design studio thinking, builds upon the findings of the author's doctoral research project and primary fieldwork in Ghana (Panta, 2018); it investigates themes such as architectural education, its curriculum, and the need to rethink the discipline and its practice from a broader environmental and cultural perspective.

The value and relevance of architectural education is becoming increasingly scrutinized in light of pressing socio-economic conditions, which demand ways of engagement and transformation in the way it is perceived and practiced (Bashier, 2014; Harris & Widder, 2014). This makes the role of the design studio, and architectural education overall, fundamental and consequently calls attention to the curriculum. In addition, Information and communication technology (ICT) has over the past couple of years become the pivot on which emerging academic teaching and learning revolve. This has become more pronounced with the global COVID 19 pandemic, which has seen many higher institutions adopt blended systems of teaching and learning for their students. The blended system is argued to have many advantages over the traditional physical teaching which include improved pedagogies, holistic knowledge acquisition, financial prudence,

social interactions as well as personal agency (Berlanda, 2017; Ibrahim & Utaberta, 2012; Shaqour, 2021; Steinø & Khalid, 2017).

In Africa the current tertiary education is defined by transformation in a way that it includes histories, experiences, narratives and perspectives that the colonial projects have suppressed, and emphasize the imperative to redefine African modernity (Lokko L., 2016). Therefore, the question that surfaces is what does a curriculum of an African institution need to entail in order to serve the needs of its students, and context in which it belongs?

Further, the rules governing how one becomes skilled and work-ready are changing globally and architectural education must change with it or risk irrelevance and ultimately, dissolution (Harris & Widder, 2014). Educators, including (Parvin and Moore 2020; Osae-Addo 2017; Lokko, Bartlett School of Architecture 2016; Lari, Al Jazeera 2016; Amaral et al. 2013; Design Indaba 2012; Till 2008, and Freire 1996), contend that education is all about giving the students the opportunity and freedom, the critical skills and tools to engage with the field as a dynamic social system and thus be able to transform it; it is not enough to train students by giving them expertise in already defined fields.

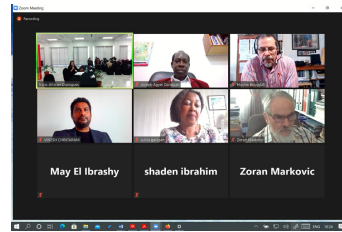
Module description

This elective module rethinks the discipline of Architecture from the perspective of other disciplines and most importantly from culture; it acknowledges the need to go beyond disciplinary boundaries and engage in inductive processes in order to find new and more relevant analytical concepts and categories so that we understand the field (Africa) in a more comprehensive way (Paul Jenkins 2013). Transdisciplinarity enables the



Fig.03 A screen shoot of some of the posters advertising the weekly lectures (Authors, 2021)

Fig.04 A screen shoot of zoom platform being used for the presentation and dialogue during one of the session (Authors, 2021)



necessary dialogue which the complexity relating to development and design in the African continent demands. It is interested in examining how collaborative teaching and learning may address the existing levels of indigenous knowledge and local skills in order to cope with the complexities and challenges of our era, with a view to specifically inform the design studio thinking and practice.

The module draws attention to the importance of “exploration” in relation to architectural practice and training in the continent, and enables the sharing of inclusive trans-African experiences and knowledge -relating to culture, education, practice and research. Broadly, it seeks to merge architectural design, theory & practice, sustainable development, community development and

participation and critical approaches to innovation in order to observe, explore, imagine, rethink and articulate Africaness. In light of the above the students learn explore the potential of urban and rural areas for adaptation and resilience through human-centred approaches to design, social transformation, inclusion and integration.

Methodology

The module uses a qualitative methodology based on a mixture of creative methods, such as the praxis of transdisciplinary collaboration in the form of dialogue (Danermark, 2019; Denney et al., 2018; Simon et al., 2018), from the initial stage of writing the proposal for the module and throughout the delivery of the module.



Fig.05 PICTURES TAKEN at the weekly module dialogue sessions (Authors, 2021)

1. Module facilitator engaging students and expert participants; 2. Student participant/speaker at a workshop session; 3. A section of students listening in during a virtual presentation by an expert speaker; 4. Students and other expert participants physically present at a workshop session; 5. Creators, students and expert participants engaged in dialogue after a presentation

The methodology entails collaboration on different levels: 1. between the course creator (authors of this paper and facilitators of the module), with the various case studies (by case studies the paper refers to the invited lectures by scholars, educators, practitioners, and experts in architectural education and practice, urban planning, community development, etc., whose work engages with the continent’s strengths and complex problems); 2. Collaboration between the various disciplines that the case studies are affiliated to; and 3. Most importantly the collaboration between the students with both the module creators/conveners and the invited case studies as illustrated in Figure 01.

The transdisciplinary dialogue is an effective tool to: re-think architectural theory and practice in a given context; address specificities of context and culture; and, question the often-rigid organizational structures of Architecture in a meaningful way enabling it to become more socially driven. The syncretism of all the above enables the module to: critique local situations and ask the right questions about the teaching and practice of architecture, question the boundaries of the discipline and its practice in the field, and reconsider the design process in the rapidly changing world. Further, the module makes use of virtual media for its implementation and delivery, specifically

social media mainly Facebook, virtual platforms like WhatsApp, cloud spaces like Google Drive for sharing work, and most importantly Zoom for broadcasting the lectures as well as enabling the semi-structured and unstructured dialogues to take place among the various case studies delivered, the students and conveners alike as seen in Figure 02. Thus the learning space encompasses both a geographical and a virtual site through and because of the use of technology; it moves from a conventional single-site location, which characterizes a physical classroom, to multiple sites of observation and participation that cross-cut dichotomies such as the ‘local’ and the ‘global’ (Jähne, Klar, and Jehle 2007).

Moreover, the combination of both sites, the physical and the virtual, contribute towards a more holistic exploration and understanding of the challenges that are related to the complexities in this context.

Using the weekly DIALOGUE delivery as case study

The use of the case study methodology is adopted to enable the understanding of complex issues the module addresses. Ten (10) case studies were selected from a pool of expertise on the African continent or whose work resonated with the African continent. These cases from nine different locations

on the continent, embody real-life situations, issues, and problems, enhance the rigor, genuineness, and gravity of the study and strengthen the cohesion and accuracy of the teachings, because ‘evidence from multiple cases is often considered more compelling (Phelan 2011; Yin 2009). This creates a comparative context through which similarities and differences are drawn in order to first understand the local social context in which these building practices are considered; Second, it ensures realistic and grounded recommendations. The case studies provide a dialogue that enables the exploration of architectural practice from a climate and culture first approach, which addresses and engages with the specificities of the context, and demonstrates diverse ways of building community resilience while reflecting on the need to integrate social, physical and cultural change.

All 10 case studies deal with similar core issues and challenges in the field and cover a wide range of approaches to making the built environment, which they explore empirically from a variety of geographic regions, different perspectives and steeped in diverse circumstances. This reinforces the idea that an Africa-to-Africa dialogue may benefit the continent. Fourteen (14) students selected the module as their elective course (15 is the maximum number per elective course). This novel module received much support from the institution including technical support and a seminar hall for the physical classroom engagements and publicity. Posters were designed for each weekly dialogue, and published (see figure 03) both on campus and social media platforms of students and staff. Students were also given reference material to read every week to gain background knowledge prior to the weekly dialogues.

Each session lasted for two hours: (a) one for the case study and Q&A from students, and (b) one hour for the dialogue amongst all participants with themes drawn from the case study. The majority of the invited case studies were broadcasted virtually on Zoom (figure 04 and 05), whilst remaining were delivered physically at the GUC campus, with expert participants and others joining on zoom for the dialogue afterwards. The invited case studies were given the freedom to develop their own presentation style and topic after having read the brief of the module, and focused on themes such as sustainable development, building materials, barrier free and inclusion, housing, cultural heritage, social cohesion, diversity and gender, earth construction, potentials and challenges of urban and rural linkages

on the African continent. Only one case study took the form of a day’s workshop, which focused on inclusive accessible design and invited academics, experts, the civil society and students alike.

The lecture notes and presentations together with references for further reading were uploaded on Google drive created for this module and shared to students and expert participants. Tasks and assignments were also accessed and delivered by students, instructors and experts on this platform. The use of the google drive was very instrumental in sharing, collection, distribution of information and instructions in various forms and a good virtual library for all participants (see Figure 06).

Analysis and findings

The novelty and authenticity of the trans-African dialogues module lies in transforming the curriculum through transdisciplinarity, blended systems of teaching and learning, and dialogue as a tool to explore and co-create knowledge. The module effectively achieved most of the set objectives including the broadening of knowledge frontiers of students through the engagement with the invited case studies. It is a new way of engaging experts in the field at GUC, with physical distance and funding as a non-issue. The table 01 shows the key challenges encountered and the solutions offered.

Challenges encountered from the module	Solutions offered
Students physical attendance to lectures	Attendance was made compulsory as part of assessing the students. Again regular reminders were done through Facebook and Watsup platforms, and printed posters on campus boards
The traditional mind set of the students	The occasional unfamiliarity with the way of teaching was overcome with very diverse forms of lecture delivery. This included PowerPoint presentations, video and audio presentations.
Difficulty of students engaging with expert participants	Students found it challenging to engage with presenters and expert panel as this was a ‘break from tradition’ where students only listen and digest what teachers instruct. Direct interaction from instructors broke this conservancy.
Too much too soon syndrome	Expert presenters were later given the free hand in finding innovative ways of making their lecture very simple and interesting to engage with participants. Presentations and further reads were shared with participants through google drive
Developing an effective system of assessment	Weekly attendance, students participating levels during dialogues and break-out sessions were used throughout the dialogue. a final research report was received from each student detailing how these have reflected in their studio work
Prepping the students for each dialogue series	Advance references and information including teasers were sent to students a 3 days before each lecture. This engendered interest for each lecture

Table 01 Key challenges encountered and the solutions offered.

Mode of assessment

The students were assessed through 3 different modes: first, their participation and engagement with the dialogues ensuing each lecture; second, the mid-term submission which was a design proposal on barrier-free solutions for the GUC campus; and third, the final submission of a written report at the end of the semester. The latter was in collaboration with their respective design studios projects and focused on the context analysis of their individual design proposals drawing on all the main themes of the trans-African dialogue series but applying them to their own projects contexts. Thirteen major themes were drawn and their level of application is seen in the figure 07.

All participants, both virtual and physical consider the module as very informative and effective in its delivery. Students were appreciative of the richness of information and exposition to critical discourse on the continent and expert presenters, and praised the transdisciplinarity of the module as the one of the best methods to influence architectural studio.

Discussion and Conclusion

As education shifts are reflecting a need to address both the health (pandemic) and climate crisis, We as educators are called to also embrace the flexible and blended approaches to teaching (Mahmoud et al., 2010; Mheta et al., 2018; Salama, 2013; Senturer & Ozersay, 1998). The paper considers the Trans-African dialogues transdisciplinary module an effective tool for contributing to the transformation in the African architectural education and curriculum. It successfully endeavoured to embrace the latter at GUC, which is a ‘normative’ architecture school where modern architecture is taught.

One of the biggest challenges in Egypt, and in other regions in Africa, was the power cuts, which sometimes occurred, that interrupted the broadcast of the Zoom participants. This was overcome by the author being physically present in the classroom encouraging the continuation of the lectures and/or dialogue. One of the realisations that surfaced from both the students and authors perspectives is that the syncretism of physical teaching with the use of technology has the maximum effect. Specifically, the workshop on inclusive and accessible design

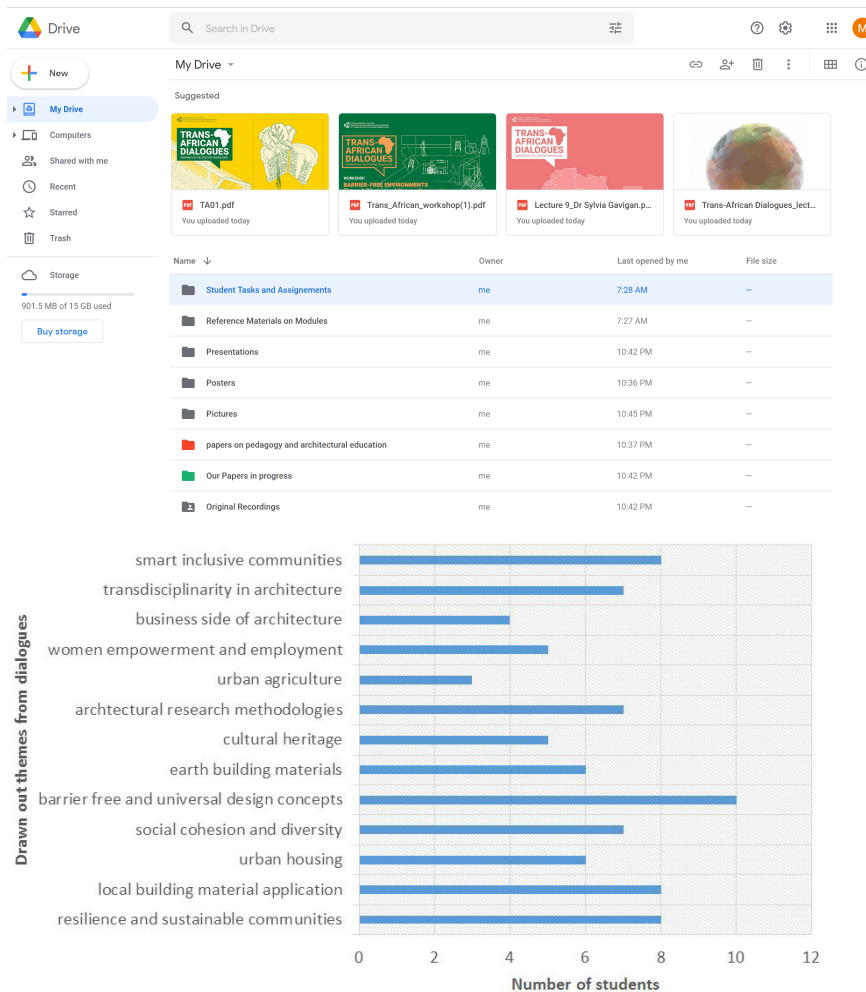


Fig.06 A screen shoot of Google drive used for further engagement with participants and students and a virtual library (Authors, 2021)

Fig.07 A chart showing the level of participating students' application of drawn out themes from the dialogue series as reflected in their studio project. (Authors, 2021)

mentioned earlier (Using the weekly DIALOGUE delivery as case study) made use of both, including demonstrations on in/accessibility by GUC students with impairments, as well as presentations on Zoom, and the 'binding' dialogue that had almost everyone from the live audience participate. There are certain qualities of online learning, which seem to present important advantages of blended learning to traditional learning, especially since the pandemic of covid-19. In light of the above, the paper contends

that the syncretism of teaching architecture in the flexible and blended approach and transdisciplinary teaching and learning methods enables solutions, which can contribute to giving the students the critical skills and tools to shape the field itself.

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