

Interdisciplinary Approaches and Action: Teaching and Transversalizing Sustainability at the Centre for International Programs and Sustainability Studies, Universidad VERITAS, Costa Rica.

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Universities can be very silo-ed and stiff spaces, academically and systemically speaking. Departments and teaching fields are fragmented, academics compete, and administrative and managerial hierarchies are culturally and institutionally embedded. All of these states are obstacles in the way of the appropriate and much needed action to combat the current environmental, cultural, and economic challenges. Universities are at the forefront of sustainability and should be preparing students to confront development needs and prepare the skills and knowledge to shift toward sustainable development, but traditional institutions and persistent internal practices do not match the shape, style and functions of those being called for by sustainability, those needed to change course. The opportunities stimulated in the search for sustainability offer a chance to be creative, practice fluidity, explore the fusion of fields. Interdisciplinary approaches, teams and sustainability tools are being called for.¹ Among the few emerging tools for sustainability is the tool of transversalizing which serves well within this multi-crisis context where multi-disciplinary approaches are a must. Transversalizing can bring a whole institution and a variety of teams under a shared umbrella of sustainability and united in its overarching challenges. The idea of transversalizing is still rather new, concepts and practices remain rather slippery and abstract. Educators for sustainability are struggling to find examples of successful transversalizing of sustainability through processes, spaces and knowledge, however some successful and worthy examples are coming to the fore. This paper, along with reinforcing the definition of transversalizing for sustainability, will discuss the advancing examples of interdisciplinary approaches and their adoption of transversalizing techniques. The discussion of the University Veritas (.V) in Costa Rica and its recent experiences in opening spaces for interdisciplinary action and transversalizing sustainability will highlight emerging successes and limitations. Interdisciplinary and multidisciplinary approaches have been adopted in the work of 1) the Centre of International Programs and Sustainability Studies (CPIES), 2) the BioCentro multidisciplinary team designing an academic campus for sustainability studies and participatory approaches, 3) the BioMol team searching for interdisciplinary and participatory research platforms, 4) the application of the 7-SesALLs transversalizing tool stimulating interdisciplinary initiatives, filling gaps in sustainability knowledge and seeking spaces for creative action for ALL, and lastly 5) the experiences of the multidisciplinary team leading the design of the new Bachelors in Management for Sustainability. CPIES has been at the heart of this shift, striving for sustainability throughout its work, transversalizing through its courses, encouraging teams to evolve and extending its mission throughout the university. The driving philosophy behind the emerging strength and confidence in experimenting with *interdisciplinary approaches for sustainability* (IS) at the CPIES department is that the SDGs specifically call for

¹ The term interdisciplinary during this paper follows the Brooks and Ryan (2008) definition “to denote research and teaching strategies that bring two or more recognized academic disciplines together, with the aim of interaction and integration between methodologies, epistemological tenets, terminology and data, in an attempt to develop approaches to a common problem.”

action, and we all have a right and responsibility to get involved.² CPIES is clear that universities have a lead role in providing IS platforms, and that jointly as educators and administrators, as a university community, we should not shy from this challenge. Celebrating their story will hopefully help consolidate their inspiring and pioneering work in interdisciplinary initiatives transversalizing for sustainability.

This article unfolds a story in sustainability that started in the wake of the launch of the SDGs in 2016. The setting is the Centre for International Programs (CPI), now named the Centre for International Programs and Sustainability Studies (CPIES) at Universidad Veritas in San Jose, Costa Rica.³ At the beginning of 2016, several of the teaching and administrative staff at the CPIES department grasped the opportunity to implement the SDGs in a creative and innovative fashion, and started on a mission to transversalize the principles and possible practice of sustainability throughout the department and the university. At the time, the mixed bag of activities were not planned out in a framework of IS, however the aspiring sustainability transversalizers were aware of the need to experiment with new techniques and approaches.⁴ Through having this open attitude and seeking to embed the fundamental principles of sustainability, the formation of new teams and ideas started to emerge. The mixing of academic fields and thus the initiation of an interdisciplinary atmosphere started to grow in an organic and simultaneous manner as more people came to the fore to join the mission to develop new projects exploring and stimulating sustainability.

Transversalizing Sustainability throughout CPIES

Starting this journey, our CPIES sustainable story, Helen Temple approached the head of department, Alejandra Barahona and suggested the formation of a new role in the university with the title of *Sustainability Studies Coordinator*.⁵ Helen suggested that she wear this title in a voluntary fashion in return for the department's support in developing and hosting a series of conferences for sustainability, and in order to start transversalizing sustainability throughout the whole department. It is a great success in itself that the department evolved its focus on sustainability studies during this period, and is now labeled with an identity seeking IS and multidisciplinary collaboration as a mechanism for its greater mission to shift learning toward sustainability.⁶

The major stimulant for Helen's involvement was the realization that she had been both teaching and acting in relation to sustainability for over twenty years, yet she felt that in light of the continued and more apparent environmental crisis scenario much more must be done at a university level and so much more could be done by her.⁷ For decades she had seen others battling away in their academic silos where they might be

² The Sustainable Development Goals (SDGs).

³ The Centre for International Programs (CPI) changed its name to The Centre for International Programs and Sustainability Studies (CPIES) in 2017 in line with its mission to consolidate its sustainability studies provision and approach. The department has had very strong environmental science and social and political science components since its elective course origins, so the shift to a sustainability focus has been smooth and easy. The department has the Spanish acronym CPIES.

⁴ Transversalizers are implementers and educators of sustainability (Temple 2016).

⁵ Helen Temple is the author of this paper, and will refer to herself in the third person instead of the first. This approach may seem a little unconventional, however Helen argues that unconventionality is what we need for sustainability, along with the sharing and celebrating of sustainability stories. Part of her dedication to sustainability and her attempts at improving the world around her, is her desire to shine light on emerging sustainable experiences and tell the sustainable stories, even if they are our own. We should not be shy when it comes to sharing sustainability and when taking our own valuable and much needed steps.

⁶ As said, the department changed its name from CPI to CPIES to incorporate sustainability studies.

⁷ For example, Helen has designed many new courses related to sustainable development, set up the San Miguel Forest Reserve, foresteered with dozens of students, created opportunities for eco-volunteering, creative conservation and forest monitoring, experimented with transversalizing and teaching techniques for sustainability. A Foresteer is a forest guardian, protector and monitor (Temple 2016).

gaining merit in their separate fields, but they were most definitely not solving the environmental and social and cultural challenges of the time. They were not preparing their students to confront these challenges beyond the classroom walls, or beyond the beautiful natural environmental setting that Costa Rica provides. In other words, they were sharing and explaining the problems, seeing them play out in the Costa Rican context, but stimulating involvement and action in solutions were very thin. Helen was advised that the next step involved finding a team to consolidate skills for sustainability.⁸ So choosing to launch the CPI conferences alongside the global launch of the SDGs, she invited an array of environmental specialist, activists, and fellow teachers to share their sustainability experiences, along with their ideas and willingness to share and grow together.⁹

The plan was to execute three conferences with each one focusing on a different central axis of sustainability, for instance, the ecological, the socio-cultural, the economic and institutional. CPI Sustainability Conference 1: The Social Side, and Conference 2: Exploring the Eco-systemic were carried out in January and July 2016 respectively.¹⁰ The first two conferences were a success in many ways, again bringing different specialties together to share and discuss advances and challenges in relation to sustainability. The CPIES teachers got to showcase their sustainability talent and creativity that they had been developing behind classroom walls and out in the field. New interdisciplinary teams were sparked and strengthened. For example, the *Shark Narrative Tracking Team* (which will be discussed below) came together at both of the conferences to present updates in their individual work, and in their interdisciplinary project aims and advances.

There was also much to learn from this experience in terms of the challenges. It is important to stress that Helen is not an event organizer, however presented with the SDGs, and the encouragement of Jeffrey Sachs to experiment and create, she ploughed ahead.¹¹ Although thoroughly dedicated to the challenge it was a hard task to execute on top of running 4-6 courses alongside the event planning. Many of the participants were disappointed with the turn out, the support of marketing, and the enthusiasm of the participants was not equally met with the support of the institution and other departments. Helen did request that CPIES initiate compulsory conference attendance for the department's students, making it a permanent interdisciplinary platform where all courses, Spanish and English taught, come together to understand and advance knowledge in sustainability, and become inspired for transversalizing the theme through their course activities. This proposal wasn't supported, even so, many of the teachers and topics voluntarily came together at the events.

Another factor easing the advancement of IS during this time was that CPIES Director, Alejandra Barahona, a true innovator in her field of international programs, also wholeheartedly, steadily and enthusiastically supported the development of transversalizing for sustainability. She has become a true champion in the development of sustainability at a study abroad program level. She has sought new opportunities

⁸ Janzen, Daniel. Personal communication with Ecologist Daniel Janzen at the Santa Rosa National Park, Guanacaste, Costa Rica, 2014.

⁹ One of the central hopes of creating the *Sustainable Studies Coordinator* role was to start and secure a platform to stimulate research, interdisciplinary approaches and opportunities for sustainability, and to tackle some of our socio-environmental issues by integrating student projects with scientific and academic activities.

¹⁰ The third conference was postponed, and is now shelved until a new interdisciplinary team is interested in organizing the event and there are funds secured.

¹¹ Inspired by the call to act in Sachs, Jeffrey. *The Age of Sustainable Development* (New York: Columbia University Press, 2015).

alongside her teaching staff, worked relentlessly on the IS projects, and believes that sustainability is the only way forward for the department. Even at times when teams have fragmented and plans have been undermined, she gets up and goes on. In common with her central team of environmentalists, sustainability teaching staff and academics, she understands that opportunities for sustainability must be forged.¹²

BioCentre

The design and development of the CPIES BioCentre deserves its own complete article. It has been a long, unfolding and enriching experience with much to convey. Some of the highlights relating to interdisciplinarity will be shared here. The dream was to develop an integral and interdisciplinary platform for teaching, design, innovation and exploration in sustainability. The central mission is *“To educate national and international students and the community of Guanacaste, in processes of sustainability and environmental education to achieve productivity and conservation of biodiversity over time. To achieve this through the development of a platform for research, innovation, and exchange, for teachers, researchers, and other professionals, in an inclusive environment; With participatory, inclusive and reciprocal learning methods; Based on an in-depth knowledge of environmental and sustainable processes.”*¹³

And the vision, *“To be a globally recognized model of sustainability that offers an innovative and integral platform, where different areas of environmental, cultural and socioeconomic knowledge come together to facilitate, orient and influence research, education and sustainable lifestyles.”*¹⁴

An interdisciplinary team of academics, designers, architects, administrators came together to design the BioCentre site aiming to create the first sustainability campus at the .V.¹⁵ The building design led by Mike Smith was complete in low impact elements, projects included a mix of permaculture, agroforestry, analog forestry, land recuperation techniques and sustainability projects, integration with the Guanacaste Conservation Area, multidisciplinary and interdisciplinary research, work and training with the local community, conservation of marine ecosystems, bioclimatic design, research in pest control, a herbarium and experimentation with textile fibers, and renewable energy usage.

Through the planning and implementation of these activities, interdisciplinarity started to flourish. Some of the interdisciplinary highlights included: 1) securing that a mixture of disciplines and perspectives were involved in every step of BioCentre project development, providing a firm and authentic attempt to apply sustainability principles from design, to execution, to eventual everyday action in the running of the centre.¹⁶ 2) A thorough biodiversity inventory record was initiated prior to the building process to insure limited impacts during implementation of infrastructure and to secure transparency of systems. 3) The BioCentre interdisciplinary team shared workshop

¹² Alejandra Barahona was one of the driving forces behind the initiation and development of the Green Lab BioCentre. It was her dream to provide an innovative interdisciplinary learning and sharing sustainable platform for the Costa Rican study abroad sector. The Biocentre design and implementation champions also included the enthusiasm and strengths of Amanda Calvo and Melania Muñoz. Both women are highly recommended to lead future interdisciplinary and multidisciplinary approaches, research and projects, as their natural abilities and skills in innovative sustainability and IS really shone through during this experience.

¹³ Barahona, Alejandra. *Green Lab BioCenter 2017. CPIES.* (Universidad Veritas, San José, Costa Rica, 2017) Slides 2-6.

¹⁴ Ibid

¹⁵ See Lopez (2012) for a discussion of the relationship between specialization and interdisciplinarity.

¹⁶ The interdisciplinary team consisted of a molecular biologist, a biologist, an ornithologist, an environmental sociologist, a botanist and agro-ecologists, several permaculturalists, an organic farmer, a sustainable engineer, green design architects, sustainability and forest specialists, a biotechnologist, and Alejandra Barahona, a study abroad specialist and head of CPIES.

spaces to develop their skills and share understanding in participatory approaches and reach consensus on a working definition of sustainability for project implementation and continuation. 4) An interdisciplinary team approach was adopted for exploring and setting up outreach, reciprocity and participatory possibilities in the local communities.



BioCentre Interdisciplinary Team

Much has been shared and learnt through the BioCentre IS activities. When asked about involvement, motivation, advances and limitations of the interdisciplinary team work, Francisco Gonzalez leading the development of butterfly gardens, pollination and sustainable management of insect pests, said *“the reason for me to join forces with other researchers on the BioCentre is that allows me to learn from others more experienced on the development of these projects. Furthermore, it allows transparency and free exchange of ideas and suggestions for our own projects.”*¹⁷ Santiago Miranda, involved in the development of permaculture design throughout the BioCentro was motivated to join the IS team because of *“the importance that I place on finding opportunities in designing projects that connect different conceptual and practical areas of knowledge and needs.”*¹⁸ Also expressing that interdisciplinary advances started *“to become very noticeable during the implementation of the project, where the project participants start to feel taken into account.”* Alejandra Barahona, CPIES Director added that *“working through an IS team enriches not only the experience of teamwork but it takes you to a new level in terms of project potential. I was hoping to enrich the programs, project, and experiences generated through a truly shared vision.”*¹⁹ Francisco articulated that an important lessons learnt from working in an interdisciplinary setting was the *“recommendations for development of a more efficient / cheap / practical butterfly garden from the analog forestry group.”*²⁰ Through interdisciplinary team exchange he saw that and many of the features of the butterfly garden could be paired with development of the analog forestry integrated ecosystem management and protection objectives. For example, initially proposed, the butterfly garden would be a standard roof-covered/enclosed area, however interdisciplinary exchange evolved a more sustainable design, an open plan version, where the

¹⁷ Temple, H. *Interdisciplinary Survey for Participants in CPIES Sustainability Projects 2016-2018.* (Universidad Veritas, San Jose, 2018).

¹⁸ Ibid

¹⁹ Ibid

²⁰ Ibid

butterflies would be free to roam and fly.²¹ Francisco also hoped to keep developing his understanding of the local community through more interdisciplinary exchange, with the desire to make his work in the BioCentre relevant and in line with community needs and desires. He had the following valuable comments about the interdisciplinary dynamic to share: *“Everyone has different objectives at work and personal level. Sometimes, when not clearly stated, personal thoughts and values and opinions interfere with the development of some objectives, so some idea exchange can lead to personal misunderstanding and grudges. Furthermore, interdisciplinary approaches in which one group is under-represented and another is over-represented is doomed to emphasize one side more than other...I would form better more equally distributed groups.”* Santiago’s hopes centered on better communication, free expression of ideas, and equally valuing different points of view. Others expressed that they wished to share and absorb all the interdisciplinary opportunities for developing their sustainability skills, especially to bring them into the classroom and into their daily lives.²²

BioCentre limits and frustrations included: lack of funding for the development of all research projects, difficulties in getting the interdisciplinary team members to coincide for meetings, focusing on one shared idea during meetings, lacking the necessary space and time to advance with ideas and projects, long travel distances, clashes in perspectives and ideas. It was also often difficult to consolidate stages, and a few times some in-fighting broke the team up for short periods. The professional attitude and shared desire to implement sustainability however always meant that differences were discussed and dissolved very quickly.

Other interdisciplinary success stories from the BioCentre experience included the work of the Analog Forestry Team, led and instructed by Milo Bekins.²³ The team members, some already involved in or teaching agro-forestry techniques, organic farming, ecology and botanics seized the chance to certify in Analog Forestry (AF), thus developing new team skills and applying them in the planning and implementation of the BioCentre site. Several of the AF team members also had previously acquired their permaculture certification, and others, inspired by the interdisciplinary setting of the BioCentre, sought training.²⁴ Permaculture and AF are two fields demanding and encouraging the development of IS professionals and bring many types of specialists and interested parties together. These fields also provided the core principles of ecological and eco-community design and daily interplay of the BioCentre, serving as the foundation for teaching students about social-environmental interactions and possibilities. The extension of these techniques throughout the community to protect, restore, develop and use surrounding natural resources and spaces while improving wellbeing and conservation was part of the ongoing vision. Santiago Miranda, a permaculture specialist, adds that *“the universal and broadly applicable tools of permaculture can be applied to diverse areas, for example non-violent communication and sociocracy stimulating ethical principles and design.”* In this manner the BioCentre was dedicated to advancing interdisciplinary approaches for sustainability and developing transversalizing and teaching for sustainability skills.

²¹ Many of these types of enclosed butterfly garden sites already exist in tourism facilities throughout Costa Rica. The aims of the BioCentre, being as true to sustainability as possible, was to innovate in new designs, settings and research and thus drive more authentic ecotourism opportunities (after Honey 2002). An open butterfly garden was being designed with a mixture and intensification of specific butterfly attracting species.

²² Temple 2018.

²³ The Analog Forestry team consisted of Milo Bekins, Amanda Calvo, Melania Muñoz, Osvaldo Calvo, and Santiago Miranda with the assistance of Helen Temple.

²⁴ The former being Santiago Miranda and Helen Temple, and the latter, Amanda Calvo and Melania Muñoz.

The BioCentre team didn't just come together to share and embed their knowledge and skills under a shared vision, they were also very open to learning from each other and improving their abilities to be able to be flexible and competent in what is needed to move more appropriately and convincingly toward sustainability. They realized that they shared a vision and desire to provide communities and students with an opportunity to learn and grow sustainability practice, and were working hard to exploit each and every piece of wisdom, creativity and chance they, their peers, the community members, students, and invited specialists could impart and strengthen. They were also all aware that it is by opening up to others, working in an interdisciplinary fashion, identifying as life learners, leaving their silos that opportunities in sustainability could be created. It is important to celebrate that united as a team they had over one hundred years of experience in sustainability. As a society and throughout the university system, we must get more used to, open to, able to unlock the silos and unleash this potential and acquired knowledge in sustainability. The BioCentre team appreciating previous successes and also failures of sustainability practice throughout their individual careers came together to merge and create a rich recipe of skills and experience, a vital source of sustainability which they believed had a chance to only get stronger. This initial phase of the BioCentre was a joyful, inspiring, challenging and unique platform that opened up so much in terms of hope, competence and action for sustainability; it brought together professionals within an innovative and experimental mission and space, and could have gone on to be one of the most integrated and interdisciplinary settings for the extension and application of sustainability in the Americas.

After two years of successful interdisciplinary design, planning, site allocation and purchase, preliminary biodiversity studies, species inventory development, research and community outreach, the BioCentre project came to an abrupt halt. It presently sits on the shelf with its interdisciplinary team confused and disbanded. The development of the BioCentre would have put .V at the cutting edge of sustainability. There were already far-developed and far-reaching plans to develop authentic ecotourism in the region, support ongoing marine biology research, and turtle and shark conservation, regenerate ecosystems and share an array of innovative environmental protection and sustainability technology and ideas with local communities. It was ambitious, yet very confident and secure in its vision, plans and possibilities for sustainability, with a fluid, capable, knowledgeable, skillful and united interdisciplinary team. A solid and appropriate sustainability project, checked and balanced by a team of specialists from key and complementary disciplines unfortunately paused in mid-flow. This experience reveals that interdisciplinary attempts at sustainability and the hard and united work of willing people must also be met with institutional support and security.

BioMol - Shark Narrative Interdisciplinary Platform

One of the first at CPIES to grasp the opportunity to build an interdisciplinary research team to transversalize sustainability and with a hope of tackling the Costa Rican conservation shark dilemma was Dr Sebastian Hernandez.²⁵ He approached Helen explaining that shark conservation couldn't be achieved by biologists alone, and from this conversation the innovative Interdisciplinary interface of the *Shark Narrative Data Tracking* (SNDT) research was born.²⁶ This platform and related projects have been

²⁵ Sebastian Hernandez is the Coordinator of the Universidad Veritas-Bio-Molecular Research Laboratory (BioMol).

²⁶ The Shark Narrative Data Tracking (SNDT) approach was conceptualized by Dr Helen Temple. It is an interdisciplinary research interface set up to gather data on the Costa Rica Shark Story. It entails mapping the narrative from various shark sector view-points, including the fishing sector (artisan and industrial), the shark scientific data, NGOs, conservation sector, legal landscape, and institutional and governmental sectors. The SNDT interdisciplinary team has included the work of marine biologist, Randall Arauz, political ecologist, Grettel Navas, sociologist and travel writer, Nicholas Johnson, bio-molecular biologist, Sebastian

incorporated into many classroom activities and student research opportunities throughout the conservation biology, molecular biology, environmental policy, ecotourism, and gender and sustainability courses.

¡FIN!

Through the work of the BioMol team and the use of interdisciplinary interface of the SNTD platform, classroom activities in CPIES have been enriched. One such example, entitled ¡FIN!, product of the *Action Plan Assignment for the Costa Rican Environmental Policy, History and Action* class led by Helen Temple, illustrated that such creative platforms can help the students communicate and explore sustainability with ease. On this occasion the students chose the theme of shark finning and shark conservation and using the aforementioned SNTD platform, designed an event to publicize the Costa Rican Shark Story. The event was called ¡FIN! in order to communicate a double meaning, one in Spanish which means “the end” and the other in English which is “fin”, to symbolize the end of shark finning and the exploitation of sharks. The nuance in the use of the SNTD platform was to try to bring the shark story alive, bring the information to the public in an informative, interactive and innovative way. The interdisciplinary aspect was also extended by inviting the Spanish and Elective course teachers to use the final product, an info-exhibit, as a platform for teaching and discussion in a variety of classes. Shark scientist, Sebastian Hernandez integrated his class themes and student activities, the Mural Design teacher also chose the marine protection theme for his class and carried out an in-situ painting activity in the shared ¡FIN!-Info-exhibit space. The final product was a hive of activity, information, inspiration and color, with teachers and students going through and in and out of the sustainable story space, stimulating greater understanding and unique exploration for their students, enjoying new approaches, imagining future activities, interacting and interweaving their knowledge and disciplines for a truly delightful, fun and refreshing approach to teaching and learning. We learnt that when interdisciplinary platforms have firm foundations and are enthused with the energy of motivated students and several core teachers, then the opportunities for sharing information and knowledge start to flow. Other results of the ¡FIN! event consisted of opening up spaces to talk of shark sustainability throughout the university, embed the concern that the BioMol has in regard to the shark crisis, publicize the plight of sharks, and encourage the public to get involved in the protection of Costa Rica’s sharks.

From such IS experiences many interdisciplinary dreams and possibilities were born at CPIES. For example, merging the approaches and platforms of the BioCentre and BioMol. Several of the projects lent well to these desires, for example the incredible work of the BioMol team paired with Equipo Tora Carey, a NGO working with children and community members in El Jobo, Guanacaste in shark and turtle biological conservation.²⁷ They show that so much can be done in a short space of time, and so much more could be done with the support and work that a well-planned and sustained interdisciplinary approach could provide. Unfortunately the BioMol’s budget has recently been cut in half and this vital and groundbreaking work uniting university

Hernandez and environmental sociologist, Helen Temple. This research project has been shared at the International Conference on Sustainable Development in New York, 2016, at the Latin American Congress on Environmental Conflicts, UCR, San José, 2016, at the ¡FIN! Info-exhibit, .V, San Jose, 2017.

²⁷ This particular project has shown fast and very successful results, for example, the children involved have become capable and impressive para-taxonomists and specialists in less than two years. They are confidently able to identify and scientifically process many marine species for study and are preparing to be the future scientists that could continue with this vital conservation biology work. Their parents and other community members have started developing ecotourism projects and are on the front lines of turtle monitoring and protection.

academics, scientists, NGOs, local people and children in an interdisciplinary and intergenerational approach is being strongly threatened.²⁸

7 SesALLs

The 7 Steps for Everyday Sustainability for ALL (7-SesALLs) transversalizing tool was born from the realisation that sustainability is stuck. In order to move forward everyone needs to be involved in determining their own sustainability story, taking their own steps and connecting to a process of local level, individual differential diagnosing of the most pertinent and persistent sustainability, ecosystem stability and eco-community challenges they face. We are failing to transversalize not only the knowledge to navigate sustainability issues, but also failing to provide basic tools for the empowerment needed to take appropriate action. Simultaneously shying from consolidating social inclusion and IS through sustainability education means empowerment, equity and ecosystem health continue to weaken.

The 7-SesALLs interdisciplinary approach takes the shape of a workshop space to discuss issues such as: innovations in sustainable educational approaches, how to provide steps for people to be clearer about making their own decisions about sustainability, engagement in diagnosing environmental issues and socio-development contexts, enabling of active citizens seeking healthier environments for all, connections with ecosystems, and understanding human rights issues and development paradigms.²⁹ The 7-SesALLs serves a motivator. It is a work in progress and designed to encourage people to take their first steps; an attempt to strengthen transversalizing sustainability skills and provide transversalizing tools. They open the conversation that we need to find ways to encourage ALL to participate in sustainability and in building sustainable societies. It is an open platform, proposing interdisciplinarity and available for all and anyone to take forward, hopefully in their own unique way. It is an invitation to experiment, unite and be creative in applying the SDGs and sustainability in everyday lives.

The 7-SesALLs were internationally shared for the first time at the *4th International Conference on Sustainable Development 2016*.³⁰ Since then the 7-SesALLs have been used to invite Spanish teacher Eugenia Yglesias, and Inter-communications professor Joaquin Lizano to develop interdisciplinary workshops in CPIES. 7-SesALLs workshops have been presented 4 times with CPIES teachers from different backgrounds, 4 times with the International Centre of Development Studies, and at the 2018 College Consortium for International Studies (CCIS) Conference titled *Creating Sustainability in Education Abroad*. With every workshop the 7-SesALLs have gotten stronger, designed to stimulate research, dialogue and contributions. They can be used individually or as part of a teachers activity pack. They have brought teachers, students and community members together under an IS approach. 7-SesALLs' successes have included the students themselves feeling confident to use and develop them. Several students have said that they will use them in their home universities, others have designed classroom activities and lesson plans using the framework, others have been encouraging family members to carry out the steps, and others have pledged firm

²⁸ It was also hoped that all of the interdisciplinary efforts would be consolidated and guided by the newly formed Sustainable Projects Coordinator role, newly occupied by Isa Torrealba. Her role was to strengthen and extend sustainability projects across CPIES and the university, but unfortunately this position has also been reduced

²⁹ Temple, H. "Costa Rica, Seven Steps for Sustainability Empowerment and Social Inclusion: A Transversalizing Tool." (*The 4th International Conference on Sustainable Development*. September 21-23, 2016, Columbia University, New York City, USA, 2016)

³⁰ Where they were discussed in relation to the Costa Rican case study. They were born from the Costa Rican context, and have thus far involved Costa Rican interdisciplinary team cooperation in their delivery and extension, however they are relevant to every setting, and again, applicable by ALL for ALL.

changes in their lives inspired by this quest for sustainability. Several of the teachers participating at the aforementioned CCIS event said they were very interested in using the 7-SesALLs' framework in their classes. The 7-SesALLs have also been applied in group work assignments for several of the sustainability focused courses at CPIES.

Bachelor in Sustainability Management

The final example of creating an innovative interdisciplinary platform at CPIES is with the development of the new Bachelor in Sustainable Management. The concept and design of this degree involved an interdisciplinary team and the final package promotes and integrates interdisciplinary approaches as a core teaching strategy and competency.³¹ The core interdisciplinary design team included, Alejandra Barahona, Milton Clark, Melania Muñoz, Noel Payne, Amanda Calvo, and Helen Temple, with a mix of skills and academic interests in environmental sciences, natural sciences, politics and economics, sustainability, sociology, gender studies, and human rights. The aim was to secure course design based on the strategic and systemic approach of sustainability and its core axis of environmental, social-cultural and economic concerns and criteria.

It has taken two years to design and prepare the course, carrying out continued dialogue and development with the University of Western Illinois who will dual host the degree. The course opens in 2018 and will provide the first sustainability themed degree at .V where cross-departmental and interdisciplinary approaches will be pioneered and a unique and fresh platform for innovation launched. Students can opt to complete the degree in their home country or carry out a period of intercultural and interdisciplinary exchange in the partner country.

Conclusion

Having had the chance to look back over the past two years of CPIES sustainability work, it is incredible to see how far the department and participants have come in the development of their sustainability story and transversalizing abilities, especially in such a short space of time. CPIES has plenty of sustainability talent, and these above examples are only some of the ways we have acted and inspired interdisciplinarity for sustainability (IS). We have learnt that every step in sustainability is worth sharing as widely and loudly as possible. Sustainable stories must be told and celebrated; sustainable experiences embedded into a firm foundation for future excitement and innovative ACTION in sustainability.

We must also warn however that the above IS examples could go on to represent just a slice in time. Becoming projects left for individual teachers and researchers to follow through instead of consolidated as platforms for greater explorations and experiences in interdisciplinary approaches. The traditional culture of the university structure and management to fragment, and its inability to see the long term worth and relevance of developing an interdisciplinary culture, are perhaps greater than its desire to move toward sustainability. These appropriate and authentic attempts at IS development reveal the need for systemic change, however there is only so much that can be done from the bottom up, on pure will and passion, before the top has to get involved and show initiative to embed change. Failures to secure a real shift in sustainability could result from the inability of the traditional university mentality to trust in the

³¹ See Uribe Castro, H. et al "Interdisciplinarietà: un desafío para transformar la universidad en el siglo XXI" Primera edición. Universidad Autónoma de Occidente, Cali, Colombia, 2017, for a discussion on the role and responsibility of higher education to implement interdisciplinary approaches in order to address academic needs in line with present day challenges.

competencies of emerging team players, to understand and share lessons learnt from the work of the IS teams, to allow for funding for the platforms needed to complement and secure these processes, and to truly understand what transversalizing for sustainability requires. .V really does have to decide if it wants a *business as usual* or *innovation in sustainability* approach and then accept all the risks and re-structuring either one demands. Presently .V stands at a cross-road, still fragmented, but at least ahead. It could still do so much more to encourage and to continue to lead in IS. Thanks to the pioneering, creative and experimental character of CPIES it has had defining moments of IS, and now it will hopefully institutionally and integrally embrace the capable and awaiting teachers, researchers and staff, embrace their talent, their experience, and realize the ongoing need to build teams for sustainability and to transversalize sustainability at every opportunity.

It is recommended out of this experience that we seek and secure new innovative roles for those with experience and insight in IS. We need sustainability coordinators/officers in CPIES, throughout Universidad VERITAS and in each and every university. IS coordinating roles occupied by people with transversalizing for sustainability skills, with desire and capability to fill the gaps, to innovate, to create teams and to connect with and go beyond international strategies and opportunities. CPIES has proved that it has a developing set of IS skills, the next step is to value and sustain them.

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