Kali and Bumi's Greenberg Adventures: A Sustainable Puppetry Series

Individual Portfolio in Sustainable Development

Kali & Bumi is an educational puppetry video series posted in YouTube and further promoted/disseminated in Instagram and TikTok. It is focused on sustainability, environmental awareness, and social responsibility. Through story-driven and case-based episodes, the series introduces complex concepts such as ecosystem services, planetary boundaries, disaster risk management, and shared resource governance in a playful and accessible way. Each episode follows the characters Kali and Bumi as they investigate environmental mysteries in their neighborhood, along with other characters such as Baby Koko and Martino. This is purposely created to encourage curiosity, critical thinking, and empathy for children aged 7-12.

The series combines simplified scientific explanations with storytelling, humor, and visual prompts to support diverse learning styles. Cultural elements and values-based messages are integrated to emphasize cooperation, care for nature, and intergenerational responsibility. Kali & Bumi aims to make sustainability understandable, relatable, and meaningful for young audiences while supporting educators and parents in early environmental education.

Learning Goal

To use puppetry as a simple and engaging tool to communicate key sustainability issues that inspire environmental awareness among children and the public.

World Building

In preparation, a character list and storyline method were designed to support character consistency and storyline variety. We reviewed previous children's shows to draw inspiration from unique characters and their traits!

Physical worldbuilding proved to be a creative challenge. Jauza (pictured above) was figuring out how to make props stand so they do not go down while filming. Wetting bread and molding it proved to be a good fix!

For the set, we used a green (blue) screen and turned my room into a filming set for a whole week. The blue was edited in post, albeit with some blue still remaining on the frame. Hence, some visual graining.

Editing was done in PowerDirector, which also provided its own learning curve. We had to get familiar with layering and video special effects since some scenes include news reporting and earthquakes, and other disasters.

In total, it must have taken us around 150 shoots to finish the entire series. This does not include test shoots.

Character List

ID	Priority	Description
Kali - human	Main	Guy - Filipino - Explosive energy, adventurous, curious, spontaneous,
Bumi - human	Main	Girl - Indonesian - Nerdy, Jello energy, a bit shy and measured
Martino	Supporti...	Animal - Jarjit x Patrick- rough around the edges, masculine, slow-to-process, clueless
Baby Koko	Supporti...	Animal - Baby Bop - soft, gentle, precious, babylike energy
Katari	Supporti...	Animal - Squidward - not enthusiastic and does not have FOMO, have to be berated, enjoys it deep inside, sarcastic
Manong Puno	Supporti...	Tree - Peppa Pig Police (w a british accent) - authoritative but soft spoken, wise and fatherly, caring grandfather energy

Storylines

ID	Type	Status	Description
1 Pilot	Supporti...	Done	Moral and emotional growth plot Comedy and misunderstanding plot
3 ESS	Jojo	Done	Fantasy or magical realism plot
4 DRR	Randell	Done	Friendship and teamwork plot
5 Commons	Randell	Done	Everyday life plot
6 Clim. and Pollution	Jojo	Done	Educational or discovery plot

Target Audience:

Primarily: Children (7-12 years old)
Secondary: Educators, and Parents

Documentation [LINK HERE]

Character Building

In puppetry, building clear and consistent characters is essential because viewers usually rely on stable personalities to recognize intention, emotion, and meaning across episodes. Therefore, Greenberg's characters must act and react in predictable ways so that values and lessons emerge through behavior rather than overt explanation. Distinct voices—different in pitch, rhythm, and tone—anchor each character's identity and prevent confusion, allowing the story to remain coherent and engaging.

Characters

Kali
VO Randell

Bumi
VO Jauza

Baby Koko
VO Jauza

Martino
VO Randell

MR Puno
VO Randell

Manong
VO Jauza

Preparatory Resources

Resource No. 1

| Jim Henson: Idea Man (2024)	
Type	Documentary directed by Ron Howard, about the work of puppeteer Jim Henson (creator of Muppets and Sesame Street) [WiKI LINK]

Puppetry, though often associated with children, transcends age and perception. It invites the audience to imagine beyond what they see—a mere hand becomes a living character, where subtle movements convey profound meaning. Other practical tips that we can implement on the production of our outcome are also gathered.

Delving into Jim Henson's work also gave me a historical perspective on puppetry as a cultural device that has captured a generation. It is remembered because of the timelessness of its message. Alongside other children's educational shows of the 70s to the new millenia, what can be learned from Jim Henson's puppetry work is the gentle simplicity that treats kids not as half-adults, but instead possessing a sophisticated inner creativity and intellect. They feel more deeply, care more intensely, and early education into basic human values can go a long way down the road. This inner intellect is something to be tapped and designed around.

Preparatory Resources

Resource No. 2
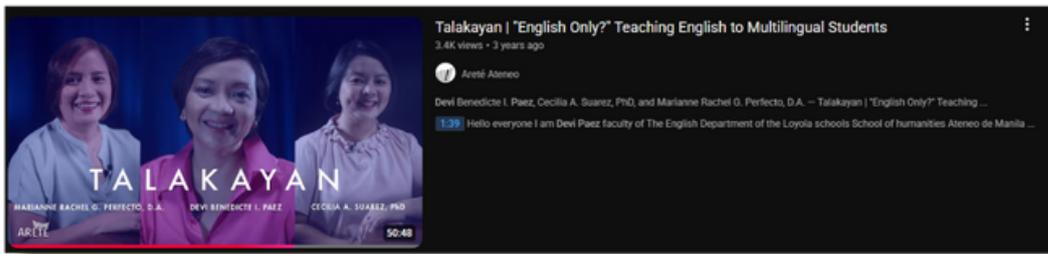
Talakayan | "English Only?" Teaching English to Multilingual Students	
Type	Podcast Youtube Video by Arete Ateneo (2022)

In the multilingual brain, there is no first or second language. All vocabularies from different languages are active in a shared repository in the mind. In a multilingual context, using more than one language in a moment of communication helps the audience grasp the message better. While traditional monolingual "English-only" instruction that plagued much of the then-occupied Global South insists on using one dominant language, translanguaging instead capitalizes on all words in the repository—making communication more effective and breaking down linguistic boundaries.

Throughout time, this practice has been looked down on for its impure use of a language. However, translanguaging is important for facilitating learning in a diverse setting. Natural shuttling among languages eases up the space in a multi-ethnicity classroom.

Preparatory Resources

Resource No. 3

Joe L. Frost
Joe L. Frost is Consultant and
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Lessons From Disasters

Play, Work, and the Creative Arts

On August 29, 2005, Hurricane Katrina devastated the American gulf coast, leaving hundreds of thousands of people homeless and without food, water, shelter, and clothing. The material and human consequences of this disaster are still being assessed, but indications are that it will be the most monumental natural disaster in American history. Hundreds, perhaps thousands, of men, women, and children perished, crushed by the effects of violent winds across four states, or drowned in massive ocean waves and in floodwater that swamped New Orleans and made the city uninhabitable. Many others succumbed to exposure and lack of medical care while waiting to be rescued. As this was being written, one week after this unparalleled American natural disaster, displaced people from the stricken areas are arriving at relief centers, temporary housing, medical centers, and schools across many states. Relief workers, teachers, and other professionals must address the effects of childhood trauma on a massive scale that will test their coping skills for the indefinite future.

In terms of environmental damage and human suffering, the effects of Hurricane Katrina are, in many respects, similar to those of the massive South Asian tsunami of 2004, which left tens of thousands of children in South Asia struggling to cope with its devastating effects. As international aid arrived and repairs to lives and environments began, children in shock and disarray arrived at medical centers, schools, and orphanages to begin the process of somehow coping and recapturing a semblance of their former joyful childhoods. In recent memory, only the Holocaust and the ongoing African uprisings and concurrent AIDS epidemic have subjected children to as much pain, misery, and loss on such an epic scale. (See Gronsfeld, 1996, for a pictorial and narrative overview of the world's pockets of child suffering.)

The intent here is to offer a glimpse of the scope and nature of disasters, both man-made and natural, and their profound effects on children's physical and emotional health; to offer a fleeting view of the strength, resiliency, and coping behaviors of children subjected to such events; and to explore how affected children are helped through the intervention of adults and the natural coping mechanisms of play, work, and the creative arts. The personal accounts of overcoming major disasters and lesser misfortunes recounted here serve to reveal the profound therapeutic powers of spontaneous play and meaningful work, and how skilled and charitable adults can sustain and heal children and help bring them joy.

The disasters discussed here were chosen as examples because of their diverse characteristics and effects, their diverse geographical locations, and the availability of extensive documentation about children's coping activities. The 2004 tsunami and the African disease and genocide disasters were selected because of their currency and the extensive Internet documentation of recovery efforts by a wide range of professionals, including teachers, therapists, medical doctors, and charitable agencies. Because of the growing frequency of world terrorism and natural disasters, the need to be prepared takes on new urgency, not only with respect to prevention and early rescue of those affected, but also for those, especially children, who will suffer the lingering emotional and physical consequences.

A compelling conclusion from studies of major disasters is that children attempt to express themselves through play, work, and creative arts, even under the most bizarre and brutal conditions (Gronsfeld, 1997; Raymond & Raymond, 2000). The source of such energy, seemingly universal in the context of great duress, appears to be innate, for no one person nor any event would prepare children for such suffering. Animal play scholars (Beckoff & Byers, 1998; Fagen, 1981; Power, 2000) see that young animals play to

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Lessons from Disasters: Play, Work, and the Creative Arts	
Type & full reference (incl. link if available)	Frost, J. L. (2005). Lessons from disasters: Play, work, and the creative arts. Childhood Education, 82(1), 2-8.

After a distressful event, the focus shifts to care really quick – including mental care for children. There is importance in preparing children before disasters, and it has been seen that individuals react differently to distress. Hence, the approach should be varied. Across the board, play and the creative arts have been seen to help children cope with trauma and related problems. Most importantly, the author mentions that it works because these are the child's natural medium for self-expression and emotion release.

Aside from the above, the author points to the important roles that adults play in helping children recover through play and arts. Effectively, he teaches how to approach a sensitive topic/situation with care and tenderness (something that can be applied to the program design).

Preparatory Resources

Resource No. 4

Do schools kill creativity? | Sir Ken Robinson | TED	
Type & full reference (incl. link if available)	Youtube Video by Ted (2007)

Effective education is a creative process. It is not bound by the cost of educating a child and the subsequent profits to be made after, but about tapping into a child's creative potential. Far too often have children been mislabeled as having ADHD, when in fact the system in which they are instructed are actually just catering to one type of "smart" — being book smart. The need to educate children based on their innate strength (e.g. through art, dance, and literature) is just as important as other strengths. For this resource, the main takeaway are those that can answer the question: what can we do differently? Sir Ken's take on the issue is the urgent need to rethink what we value and award in schools.

Preparatory Resources

Resource No. 5

Social Capital and Well-Being:
Interrogating Vulnerabilities
and Adaptive Capacities and Resilience
in Disaster-Prone Communities
in the Philippines

Emma Porio and Justin See

Abstract A burgeoning literature has found that social capital and trust networks play a central role in disaster recovery and developing community resilience. However, little is known about the structure of social capital, trust networks, and other infrastructural ties among disaster-prone communities in the Philippines. To address this gap, this study interrogates the role that social capital play among vulnerable groups in the Philippines and unpacks its implications in advancing resilience building initiatives. Drawing on a national survey of 1200 respondents, this study has three key findings. First, there is a significant difference on trust levels according to gender: males tend to have stronger institutional ties than females. Second, there exists a regional imbalance in terms of the distribution of social capital and social well-being. The farther the respondents are from Metro Manila, the higher their trust networks and social well-being outcomes are. Third, formally organized groups like neighborhood associations, civic organizations, national/local government units, and their agencies have a critical role to play in working with communities to build resilience to natural disasters. The study ultimately finds that social well-being is highly correlated with social capital: those who are included in social networks tend to exhibit better health and well-being outcomes across the country.

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Social Capital and Well-Being: Interrogating Vulnerabilities and Adaptive Capacities and Resilience in Disaster-Prone Communities in the Philippines	
Type & full reference (incl. link if available)	Porio, E., & See, J. (2024). Social Capital and Well-Being: Interrogating Vulnerabilities and Adaptive Capacities and Resilience in Disaster-Prone Communities in the Philippines. In Social Well-Being, Development, and Multiple Modernities in Asia (pp. 81-102). Singapore: Springer Nature Singapore.

This paper looks into the role that social capital plays among vulnerable groups in the Philippines and tries to see how that can be linked to advancing resilience building initiatives. First, the paper sees social capital as crucial in disaster-prone communities. Although it varies according to gender, geography, and a person's engagement with mobilizing institutions, the strength of a community's social relations play an essential part in supporting its disaster resilience.

Overall, the research underscores a strong link between social capital and social well-being, suggesting that individuals who are more engaged in social networks tend to enjoy better health, deeper trust, and greater resilience across different parts of the country.

How the Resources Contributed to my Learning Objective and Academic Output

Dealing with children gives us both an opportunity and a challenge. On one hand, children make use of their expansive imagination and capacity for wonder. On the other hand, such innocent minds must also have to be accorded a certain gentleness in the way sustainability issues are accorded to them. Pedagogically, the diversity of the audience should also be considered. Through some of the resources, I have seen how puppetry, in its most engaging form, has proven to be a crucial tool in communicating and simplifying topics of importance. Shows like Sesame Street, 31 Minutos, and Sineskwela (Philippines) continue to teach children until today. Although not simple, its capacity is boundless. Its efficacy can go so far as the imagination of those who yield and talk through it. With tenderness yet awareness of the innate brilliance of a child's brain, I understand that contextual knowledge of complex sustainability topics can be communicated through this increasingly rare artform.

Overall, and going back to my main learning goal, I am to use "puppetry as a simple and engaging tool to communicate key sustainability issues." However, said sustainable issues themselves are rarely simple and sparsely engaging. The resources, taken together, form a bigger whole that teach me how to approach the weaving of the academic output. Among the episodes, this reflects in how the dialogue is articulated and paced, the metamorphosing of complex issues, and the overall humanity of the characters. In these simple yet intentional adjustments to the project, the resources find their contribution.

Outcomes and Impact

Outcomes

Kali and Bumi's Greenberg Adventures resulted in a completed five-episode sustainability puppetry video series targeted primarily at children aged 7–12, with secondary audiences including educators and parents. The output was produced in video format and publicly disseminated through YouTube (including YouTube Kids) and Instagram, supported by original character design, scripting, voice acting, filming, and post-production by the team. Each episode translates complex sustainability frameworks (i.e. Disaster Risk Reduction, ecosystem services, climate change, and commons governance) into age-appropriate, narrative-driven storylines using puppetry and translanguaging. The project is fully documented with scripts, editing materials, and posting records.

Impact

Within the first month of publication, the series recorded 64 views on YouTube, providing initial evidence of public reach following release. The project expands access to sustainability education by using widely available digital platforms and free video content. Its use of puppetry, clear visual and audio cues, closed captions, and multilingual dialogue supports comprehension, inclusion, and engagement among young and multilingual audiences. By incorporating Filipino and Indonesian concepts such as bayanihan and gotong royong directly into the narrative, the series contributes to culturally inclusive sustainability communication and offers a reusable educational resource for informal learning contexts and potential classroom use.

Translanguaged Puppetry as Critical Pedagogy

I. Introduction

Kali and Bumi's Greenberg Adventures is a sustainability puppetry series created to communicate key environmental and social issues through storytelling that is accessible to children, while remaining meaningful to educators and parents. Developed by my partner, Jauza Hasna, and myself, the project consists of five short episodes that use puppetry as an entry point into discussions on care, commons, disaster response, and ecological responsibility. Now that the series has been published on YouTube and Instagram, the project stands not only as a finished creative output, but as a pedagogical experiment shaped by specific choices about language, form, and audience.

Looking back, I find it necessary to engage with the project through a more critical and reflective lens. Because this work was created with utmost care and personal motivation, it invites questions beyond its egress. Questions like: what kind of knowledge does this produce? for whom? and under what conditions? Moreover, how does this relate to broader conversations on sustainability education, power, and inclusion that have emerged throughout the course? Rather than offering answers outright, in this reflection, I will weave two themes as points of entry. First, it examines puppetry as an alternative pedagogical medium. Second, it considers translanguaging as a political and epistemic practice that challenges monolingual and Western-dominated modes of sustainability knowledge. Together, these lenses frame the project as a situated attempt to rethink how sustainability can be taught, felt, and shared.

Translanguaged Puppetry as Critical Pedagogy

II. Puppetry as Alternative Pedagogy

"Play is the work of the child."

MARIA MONTESSORI, 1964 (CITED IN LIU ET AL., 2017)

Montessori's view of learning through play reflects a way of thinking that is also present in this project. In one of the preparatory resources, Sir Ken Robinson makes a similar point: that education should begin by respecting the child's natural curiosity rather than trying to routinize it out. Both perspectives, in different ways, point to the potential of puppetry. In Kali and Bumi's Greenberg Adventures, this child-centered approach is built into the dialogue and storytelling. Respect here does not mean simply making ideas smaller or easier, but allowing them to be reshaped into forms that children can feel and relate to.

Initially, my goal was to simplify sustainability concepts. But as the project developed, I realized that "simple" was not enough. If the series were only about simplification, the writing would have been quicker, the plots flatter, and the dialogue more literal. Instead, we felt that the stories needed to have weight — emotional, creative, ecological, and humanistic depth. This realization corrected my early assumption that writing for children would be easy. In reality, we spent more time writing than expected, because each episode had to be carefully shaped around how children experience stories, not just how adults explain ideas. Because writing each episode needs more than just intellect, or simplicity — it needs intentionality that lends itself to a child's inner world.

Translanguaged Puppetry as Critical Pedagogy

II. Puppetry as Alternative Pedagogy

Thinking about puppetry as both a method and a medium helped me understand this better. If a professor uses slides, there are standards to follow—clear structure, readable text, visual balance. Puppetry demands its own. Characters need consistent yet arching personalities, stories must follow a certain rhythm, and pacing has to match attention spans without rushing meaning. Dialogue must sound playful but still carry intention. I cannot say that we succeeded in all of this (children themselves should be the judges), but what mattered was recognizing that these constraints existed. Writing for puppetry required holding simplicity and intention at the same time.

Puppetry, then, is not just decoration. When I saw the example of 31 minutos, it helped me understand the technical complexity and the creative texture of the craft. However, its fast pacing and layered humor seem better suited to older audiences. Our project took a different path. Rather than compressing ideas into short, visually dense segments, we allowed scenes to breathe. In the episode on the commons, for example, the story depends on showing frustration, care, and discomfort when one character takes more than their share. These emotions are not invented; they are amplified through the medium. From the lessons in class, I understand that governance of shared resources is personal to stakeholders as much as it is collective. In this sense, puppetry does not merely carry the message—it transfigures it. Tying it back to what I said earlier, intentionality matters.

Translanguaged Puppetry as Critical Pedagogy

III. Translanguaging as Political and Epistemic

"The general liberal consensus that "true" knowledge is fundamentally non-political... obscures the highly... organized political circumstances when knowledge is produced".

EDWARD SAID, 1978 (CITED IN ROBBINS, 2012, P. 71)

I am reminded here of a line from our Political Ecology class: knowledge is political. This may sound obvious, but it is easy to forget how deeply power shapes what is taught, how it is taught, and in which language. Education does not exist outside politics; it is embedded within it. Hegemonic forces exert a constant push and pull on the strings of education, although learners and educators might not always be aware. In the context of my home country, the Philippines, one clear expression of this is the persistent dominance of English as the language of instruction and governance, alongside the privileging of Western epistemologies as the primary source of legitimate knowledge.

Historically, Constantino (1970) describes this condition as the "miseducation of the Filipinos," where schooling was designed to serve colonial interests rather than local realities. He argues that education was introduced as a handmaiden of colonial policy. The result has been a form of epistemic violence: indigenous knowledge systems are sidelined, and learning becomes disconnected from everyday life — producing wide learning gaps (Cena, 1958; Bernado, 2004). Economist CuUnjieng (The View from Manila, 2025), reacting to reports of the country's literacy crisis, points to a striking contrast with neighboring countries that teach children in languages they are conversant at or already speak. The Philippines, by comparison, remains bound to an English-based system engineered during American colonial rule. From my own experience, this produces a foreign and deeply alienating learning environment—thinking and speaking in one language, but being asked to learn in another. . I remember dreadful moments of stepping into "english only" spaces where silence felt safer than participation.

Translanguaged Puppetry as Critical Pedagogy

III. Translanguaging as Political and Epistemic

It is within this space of fear and exclusion that translanguaging offers relief. Translanguaging challenges the idea that languages exist in neat hierarchies of "first" and "second." Instead, it recognizes that in a multilingual mind, words from different languages coexist in a shared cognitive space. Allowing learners to move across languages in communication does not dilute meaning; it strengthens it. This stands in contrast to rigid monolingual instruction—common across formerly colonized contexts—which insists on one dominant language at the expense of comprehension and confidence.

In this project, translanguaging operates as more than a practical communication strategy. Through the culturally rich dialogue of Kali, Bumi, and the gang, it becomes a way of legitimizing multiple ways of knowing. For example, the use of Gotong Royong (Indonesian) and Bayanihan (Filipino) in our DRR episode (Ep. 3). Both of the terms mean to have a sense of civic duty to help each other (often used during calamities). However, they really don't have direct translations. Trapped within them are unique cultural meanings that surround disaster response and community fellowship (see Slikkerveer, 2019; Ealdama, 2012). These concepts are neither translated away nor reduced to English equivalents; they are allowed to carry their own cultural weight. Their presence challenges the assumption that sustainability knowledge flows only in English or only from the Global North. Instead, the project affirms that resilience can be homegrown. Resilience that is rooted in local language, collective memory, and lived relationships with the environment.

# Translanguaged Puppetry as Critical Pedagogy

IV. Conclusion

Taken together, this project has clarified for me that sustainability communication cannot be separated from the political and historical conditions through which knowledge is produced and circulated. Through puppetry and translanguaging, Kali and Bumi's Greenberg Adventures positions sustainability education as relational, affective, and grounded in lived experience rather than abstract expertise. Puppetry, in this sense, functions not as simplification but as an alternative pedagogical medium—one that allows complexity, care, and conflict to be felt rather than merely explained.

At the same time, translanguaging embedded within the project resists monolingual and Western-centered knowledge systems by legitimizing local concepts, languages, and ways of knowing. By allowing ideas such as Bayanihan and Gotong Royong to stand on their own terms, the series affirms that sustainability knowledge does not flow only from the Global North, nor exclusively in English. Instead, it emerges from collective memory, cultural practice, and everyday relationships with the environment. In this way, the project reframes sustainability not as a distant technical problem, but as a shared, culturally embedded responsibility—one that can be learned through play, language, and connection.
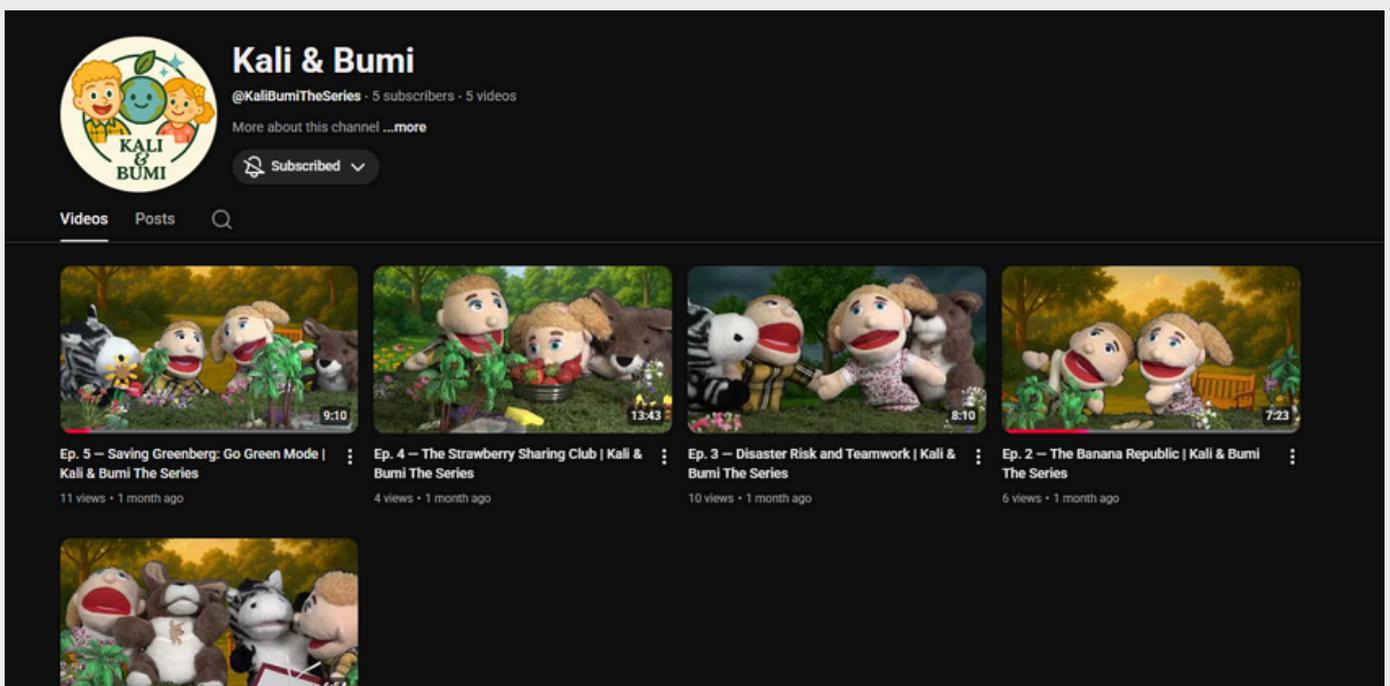
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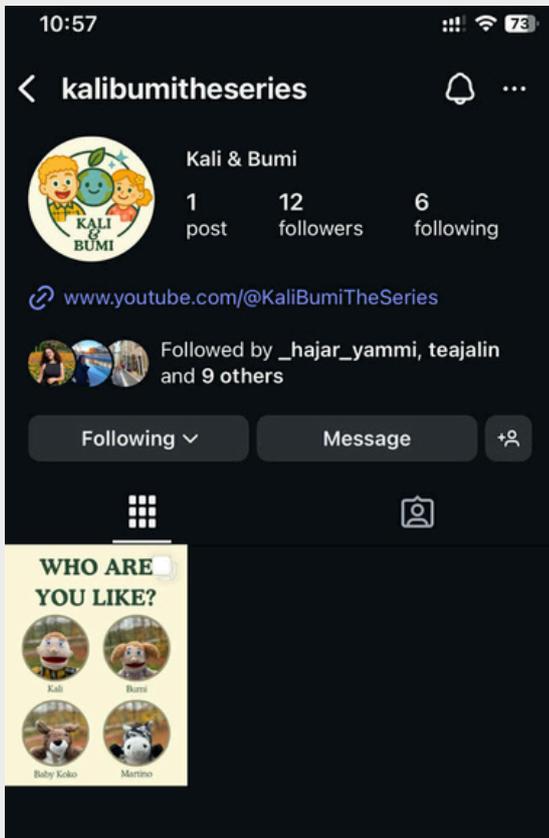
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Thank you!

MSc Sustainable Development

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