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TEACHING AND PRACTICE

CREATIVE CONNECTIONS WITH RIVERS: A TOOLKIT FOR LEARNING AND COLLABORATION

By Stephanie Januchowski-Hartley, Ioanna (Daphne)
Giannoulatou, and Merryn Thomas

We are three people who draw on research and practice to create arts-based learning, engagement materials, and interventions with and for diverse audiences. We purposefully

integrate and apply different artistic methods in non-artistic disciplines, such as ecology and environmental conservation, physics, climate science, and human health. We came to know each other



Detail of a mixed-media haiku created by Benjamin at the Metamorffosis Festival, Bangor, UK.

and work together through a four-year project that was awarded to the lead author and focused on rivers in a fragmented world. Our project had local and global foci on rivers, and many of the activities, including those shared in this article, were designed with and for people in the United Kingdom but with a view that the ideas could be adapted and applied in other contexts.

Below is a “creative connections with rivers” toolkit detailing three arts-based activities, providing associated prompts, and offering worked examples and reflections on the impact of the activities from our own practices. The activities in the toolkit were designed with our own acknowledgement that rivers are often unseen, unseeable, and modified (Januchowski-Hartley et al. 2020), and that artistic methods and creative practices can offer ways for people to know, make visible, and share about hidden spaces and connections (Giannoulatou et al. 2023; Antona 2019) and hard-to-communicate ecological processes (Thomas et al. 2021). With inspiration from other scholars and creators, including Eric Magrane, Madhur Anand, and Linda Barry, as well as our own creative practices, we integrated different artistic methods in each activity. The integration of methods in the activities was purposeful and aimed to make the activities flexible and accessible to different audiences and settings, to encourage collaboration where possible, and promote more entangled ways of communicating about rivers and relationships with them.

Activity 1: Our River Words and Stories

This activity is focused on surfacing and sharing river words and stories either on your own or with a group. The goal with this activity is for each person to share about a river experience. Access to rivers is highly variable depending on where you live. In many urban environments waterways are hidden underground or culverted under roads and entire city blocks, and access to rivers is often constrained by accessibility to

transportation or distance. Therefore, this first activity aims to stimulate your imagination, using visual prompts as inspiration to help you surface river words and stories. You can either use the prompts that we provide or generate your own prompts depending on how you use this activity and the accompanying resources. We implemented this activity as part of a public exhibition that ran for two months in Swansea, UK in 2022.

Step One: Find River Words

You can find river words in your mind using the prompt cards we have provided from our Underwater Haiku initiative, or by coming up with your own way of finding river words such as using an online search, taking a walk along a river, or talking about a river with a friend. Once

you find words make sure you can see or access them easily. You could hold the words in your mind, make a circle around the words or highlight them, or write them down. You will use the words you selected to do some creative writing about rivers.

ripple flicker gobies flow rocks tumbling along en rios submarinos
between rivers] braids, stones, turbid churn. churn. churn. churn.
half-lit citadels vivid reflecting ripples reflux a pinky mouth swallow
the ebb] stickle toiled the ice jam downstream soft water river moss
float weeds on rust-red rocks black tadpoles start transforming
pebbles hide stone, scattered sands stone, trickling roll, stir carp
hiding in river revisited. revisited. revisited. revisited. dive, cold,
sound, wave, flood like a curls catching treasure lies below entwined
among dancing reeds my whispering wrecks; the mersey what lies
hidden in the flash weir stone nutrient lurk water is murky my feet
fumble light fast flowing waters water splashes, life erupts imagina-
tion brown in underwater running deep magnificent light refracts
through the riffles waters underwater thoroughfare to be blenny or
goby sunlight pebbles the heart submerged in a blue white wash
sudden trauma swim below shifting depths distil life flowing
seawards deep, dark life aesthetically cool storm roam, nomad
home land life to forests sway in flecked blue green shimmer
shallows surge dark the river's beds ambulance white stands pleas-
ant summertime gently forcing could be knotted rainbow surprise
calm and dappled light pebbles are liquid slime hides river flows
safe again, see fronds and never the human waste what there is,
what there easy. easy. easy. easy. stone loach and minnow to my
confinement paused weeds twisting with the current mottleflash
flicktail rush weed shadow the inner elbow sliding in the sly ether
murky weeds beneath our vision damaged reefs debris fish, stran-
gled by at on life daughter rounding rock pebbles invite a visit to
fades as pressure grows dreaming, i breathe amid reeds rolling of
feathers stone soft in the set of stone silver fish skittering among

winged fish takes flight. takes flight. just see how she flies the hybrid.
the hybrid. this lake-water lacks oxygen for gulping gills. gulping
gills. i must and wing and fin a flash of flying silver brief fish ladders?
fish ladders? salmon in the sky, above the flowing river, light follow
that tide home to shimmer dance one last above the water, below
the yellowing sun. yellowing sun. swift flash of waters dream up high.
up high. carp-like, part machine steers with rear forth? rear forth?
perpetuum mobile--engine in my butt. my butt. bamboo leaves
rustling. leaves rustling. translucent sun speckled droplets wings
iridescent deep-sea reflections a salmon's eyes time shed no more
salt tears. salt tears. sally swims solo. swims solo. tail still. tail still.
escaping right now, flying fish looking for life, away dreams, takes
wing, soars, tastes the high life. salmon plans likewise. plans likewise.
look into the fisherman's lure. fisherman's lure. the spread of his
wings take to wing. to wing. river obstruction. river obstruction.
meets sally's adaptation. sally's adaptation. who needs from sugar
to salt. to salt. see-through wings afloat on-air scales reflecting i
swim and fly home to enable creation to reproduce from danger.
from danger. gurgling, bugged longing to return to my birth fiery sea
on me i always welcome him. welcome him. salmon? mayfly?
salmon? mayfly? sheen of a rainbow in the arc of her back. her back.
four laced wings in flight where is my river? my river? scale swishing
wildly around. wildly around. frothing the water. the water. sally
gasping air spreads place, gravel origin. gravel origin. the mighty
dragon. mighty dragon. flying, twirling, hunting, feeding. hunting.
feeding. the mighty salmon. mighty salmon. angler's fly lures fish.
lures fish. ambiguity — freedom. — freedom. underwater. in pools we
all become birds. become birds. what pushes me moment in time

Words from the [Underwater Haiku Collaborative Collection](#) were used as prompts in a public exhibition about rivers that was held at Oriel Science, Swansea, UK.

[Read prompts in PDF format.](#)

Step Two: Create a River Sentence, Poem, or Sketch

Now you will transform your river words into a sentence, poem, sketch, or other creative piece of writing. You can include thoughts, feelings, sights, sounds, textures, smells, or other expressions you associate with rivers and the words you found. Our team implemented this step by

placing large sheets of paper on the walls of the exhibition space. These sheets of paper shared words as prompts. Next to them, we placed empty sheets of paper, inviting visitors to share words, sentences, poems, drawings, or other forms of expression about rivers.

Step Three: Collage River Words and Stories

The goal in this step is for a group to create a work of art that is a sum of all the words or drawings shared about rivers. For this step of the activity, we propose creating a collage, which can be formed of words or drawings. Collage is an artistic method originating from the French word *collé*—meaning glued. Collage can accommodate multiple people’s experiences and understandings by binding different media together (Giannoulatou et al. 2023). Other materials and media could also be brought into the collage to further contextualize the words and stories shared by people engaged in the activity. We used digital collage and poetry to create a video about rivers and fish migration in the UK based on what was present and absent from writings and drawings shared in the public exhibition. If you undertake this activity alone, the words and stories that you write could be brought together to create a single piece of creative writing or other art form.

See video Present and Absent.

Words and drawings that were present and absent from people’s offerings during the public exhibition at Oriol Science, Swansea, UK were the basis for this digital story our team created. The video is about rivers and fish migration

in the UK. The poetic narratives for the three fishes in the story include words that people contributed.

For us, the activity provided ways for people to share through different media what they know and feel about rivers, which some adults said they never thought about or had not been asked to consider before. When we delivered this activity at Oriol Science in Swansea, UK, we were able to observe people’s impressions and expressions because someone from our team was present each day. We observed that people who engaged in the activity expressed wonder and delight at the opportunity to contribute their experiences and feelings to something bigger. People shared stories with us about rivers, lakes, or seas, sometimes as they created on the page, but more frequently before and after their engagement with the activity. Visitors also expressed disbelief that we were interested in having their creations be part of a larger artwork. Several people made return visits, bringing larger groups of friends and family to engage with the activity and the broader exhibition space.

The video we created with people’s responses to the activity illuminated both what people know and have experienced, and what they might think

or know less about when it comes to rivers in the UK and beyond. Our use of digital collage and creating the video was an intentional effort to go beyond disseminating information in a pleasant-to-the-eye way; it was an effort to listen, include, cultivate a culture of scientific literacy, and positively impact our local place. Through

screenings of the video, we observed that the combination of discursive and nondiscursive forms of communication in the video created a bridge between science, art, and people, and made scientific concepts presented in the video relatable to broad audiences, including children ages seven and below.



People finding words, writing, and drawing on large sheets of paper hung on walls (left), and examples of drawings and writings that people contributed (right), during a public exhibition at Oriel Science, Swansea, UK.

Activity 2: A Creative Journey with Rivers

This activity takes you on a creative journey with rivers. The goal of this activity is to share information about a river that you are familiar with and to collaborate with others in guiding those rivers you know on a journey through creative expression. You will share about rivers through writing, creating mixed-media pieces, dressing up, and improvising. We implemented this activity with a small group outdoors in a park for Metamorfosis Festival, Bangor, UK, but you could bring it indoors and simulate a local river environment with sounds and sights.



The outdoor space where the journey with rivers activity was delivered in Bangor, UK.



A mixed-media haiku created by Benjamin at the Metamorffosis Festival, Bangor, UK.

Step One: Create a Mixed-Media River Haiku

Begin in a comfortable place and position, and then think about a river. It might be a river you have never seen but that you have read about or imagined. Maybe that river is hidden in some way, culverted under your street or city. Gather your thoughts and feelings about that river in your mind. Then write down or draw your thoughts and feelings about the river and organize those roughly into a written haiku, which is a Japanese poetic form that when written in English translates to lines of five, seven, and five syllables. You can create a mixed-media haiku by representing each word with a physical item. For example, the line, “one silver fish jumps” would be represented with four items, where a stick could represent “one,” a piece of foil could represent “silver,” and so on.

Step Two: Create a River Story

If you are in a group, come together to share your mixed-media haiku. Each person can take a turn to share their haiku. As a person shares, others observe and work to identify commonalities across the haiku. Once everyone has shared, work together to create a story about your rivers in the present day. The story will ideally include a beginning, middle, and end that seems to cover what is emerging from the haiku. The duration of this step will vary based on the size of the group, time available, and the detail that people want to invest in developing their story.



Anna reads her haiku at the Metamorffossis Festival, Bangor, UK.

Step Three: Dress Up as Rivers

As a group, find items and materials to use as props and costumes to promote action and communicate the setting of your story. You can return to and repurpose the materials you prepared for your mixed-media haiku. The goal with finding and using props and making costumes is to help you move the story you have prepared about a river in the present day to a potential future with that river. The props should augment your story narration and performance in the next step. When we delivered this activity, we provided materials for people to use and tried to avoid disrupting the local environment. People also used their own clothing and personal items.



Costumes and props being prepared at the Metamorffosis Festival, Bangor, UK.

Step Four: Improvise Your River Story

Improvisation is a theatrical activity that is considered to have transformative power both for the performer and the viewer through interrogation of social, political, and ethical considerations of a story or problem (Olsen 2022). With your props and costumes prepared, perform your group's story about a river in the present day and then shift that story from the present day to an imagined future with the river. The goal here is not to practice, but to spontaneously enact the river story, moving from present day to potential future. You can guide a discussion and reflection about the creative journey with rivers to think

and share about what the activities surfaced for people about rivers today and in potential futures.

When we delivered this activity at the Metamorffosis Festival, we worked with a small group of people who had varied levels of experience and confidence with the different artistic methods involved. We asked people to reflect and write in response to a few prompts before and after we facilitated this activity. Everyone who participated in this activity expressed having some connection with rivers and noted



River improvisation at the Metamorffosis Festival, Bangor, UK.

having visited one daily, a few days earlier, or some months ago. For example, Benjamin said, “In my daily walking ritual, I connect to the five elements (earth, air, fire, water, spirit) and with the water element connect to the cycle of cloud, rain, stream, river, sea. So, every day I flow with the river.”

While people had identified existing connections with rivers, they also believed that the activity got them thinking differently about rivers. For example, Sarah noted, “I liked focusing on rivers in such a specific way—I guess I take the rivers for granted, that they might always be there. But our performance spontaneously brought up anxiety about climate change and what will happen in the future. An imagined apocalypse.”

People also felt that the activity could be a catalyst for encouraging people to have more active

engagement with rivers and awareness raising. For example, Anna said, “The activities were very energising and stimulated the imagination around rivers—the sense of anxiety and the imagery of choking and dying; the activities could work as a catalyst for more active engagement in river awareness and some kind of action following on from this.”

From our perspective as facilitators of the activity, we did not anticipate the level of energy and performance that spontaneously emerged through the improvisation. We believe the activity created a safe space for all participants to freely explore their feelings about rivers and helped them strengthen their abilities to observe, think, listen, and communicate discursively and in nondiscursive ways about the challenges that riverine ecosystems face.

Activity 3: Sharing Weir-d River Experiences

This activity focuses on engaging in and sharing about weir-d river experiences with others. The goal of this activity is to collaborate with others to create mixed-media creations that communicate the feelings that different people had during a weir-d river visit. While any experience can be a weir-d one, a key part of this activity is to visit a river with others to engage with it and share how

the experience makes you feel. We came up with the idea of a weir-d experience when we were invited to visit an underwater viewing gallery that is built alongside a weir in the River Severn, UK. Inside the gallery there is an underwater viewing window that makes the underwater environment of the fish pass visible to guests and scientists.

Step One: Prepare Prompts and Write About Your Weir-d Experiences

This activity requires some planning ahead to organize the weir-d experience and the creative writing that you will do before, during, and after your visit. We provide the questions we used as prompts when we implemented this activity, but if you want to create your own questions it can be good to do so well in advance of your weir-d experience. The prompts could help situate

the forthcoming weir-d experience and draw connections to other experiences. Jo Bell and Jane Commane (2017) suggest that prompts can also inspire us to write unexpected things, which could be particularly interesting and revealing in relation to the planned weir-d experience. Once you have your prompts ready, decide how you will do your writing in relation to the planned

experience, and determine any materials you might need to have with you. Then get started by writing in response to the prepared prompts. When you finish this step, you will have notes and drafts in response to each of the prompts from

before, during, and after your weir-d experience. You could end this activity at this step if you want to keep your writing for yourself. If you choose to share your writing, you will continue by creating collectively inspired poems.

Embracing Weir-D Experiences

Before: think and write about past and planned experiences

Example prompts:

Have you visited a similar place? If so, what emotions or sensations came up for you?
If not, what comes to mind from any other nature experience you have had?
What will the place be like? How might you feel there? What could you encounter?
Consider sights, sounds, smells, textures...

During: write about the experience you are having and reflect

Example prompts:

Why did you come to this place? What emotions or sensations are you experiencing?
How is this experience similar or different to those you had before?
What is one unexpected thing that you observe in this place?

After: think and write about what you are left with from the experience

Example prompts:

What thoughts, emotions, or sensations are you left with after your visit?
How was the experience similar or different to ones you had before?
What words or images do you hold in your mind from the recent experience?

Example prompts to inspire writing before, during, and after a weir-d river experience.

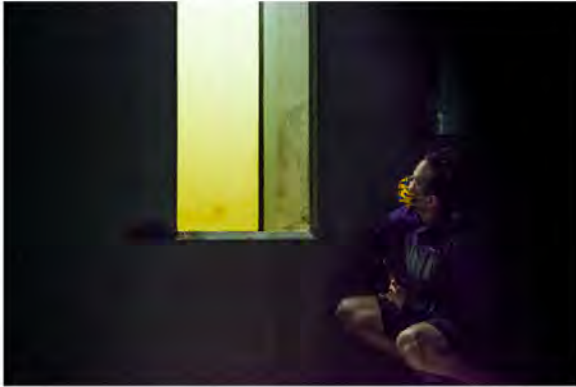
Read prompts in PDF format.

Step Two: Create Weir-d Poems

The goal of this step is to explore your memories and those of other people who shared the weir-d experience with you, and to express thoughts, feelings, and sensations from the experience. To

do this, you could craft poems or other creative forms of expression. Each person doing this step of the activity can choose how they will further explore their writing. For example, when we

Three Ways to write Weir-D Poems



- Write experiences shared by more than one person into a single voice.
- Attend to non-humans and happenings above and below water.
- Consider sensations and emotions about being above or below water.
- Set aside, return to edit after a few days.



- Identify memories or reflections shared by different people from their experiences.
- Write ideas into a loose poetic form.
- Push the story forward by using pauses and abstract thoughts and imagery.
- Set aside, return to edit after a few days.



- Take one hour to write your own experience.
- Pull words from prompt responses and add additional feelings from your experience.
- Write notes into a loose poetic form.
- Return a couple of hours later to edit.

Three approaches to creative writing about a weir-d river experience.

Read approaches in PDF format.

Three Weir-D Poems

Imagine

We're in an underwater chamber.
How do fish encounter us? Stood still.
They observe, we aren't swimming.

It's damp, smells like the river. Eutrophic,
earthy and fishy. Pressure-held, we breathe
without struggle, without gills.
Around us, the river seeks to come in, join in
the underwater world. We're feeling alien,
like sturgeon returned to the River Severn.

Prehistoric wonders and modern mystery,
they cruise waters not taking notice of us
humans. We never swam with dinosaurs.
Return to the chamber. Concrete, a view in?
Below murky surface to fish passing. Silent.
Will we feel calm under pressure?

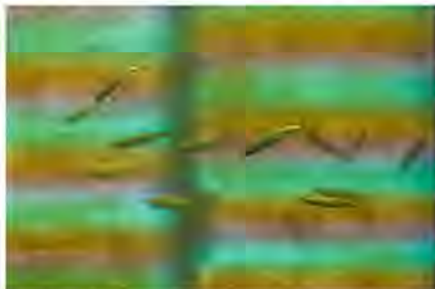
Cautious, we imagine things differently.
Size, materials, quality of light. But silence,
silence we agree on. Until the river's on,
through a speaker that fills us with water.
Gurgles fill the dry silence, flowing freely,
beyond our ears or gaze, moving instream.

Now below water. Anything can emerge
from the depths, reminiscent of snorkelling
floating leaves drift by the windows.

It's rather gloomy, like an empty theatre
until words fill, float around the space.
We're surrounded. Turbid, tannin colours.

Was it a Sea Lamprey? We ask, intrigued.
Like dreams remembered, fragments of life
we peep through a keyhole to their journey.
We surface. Some wanted to stay.
Fishes walking, our memories top-up.
Saturated by raindrops. Curtains draw,

in shadow and soft light, the window,
the portal to another way of living,
where dancing fish lead with careful steps, we respect.



Watching a Window

All my memories are visual,
graceful manta rays gliding overhead and smiling with their strange mouths.
Interactions, and displays to connect people to the underwater.
A sense of wonder and sadness.

Quieter, murkier, damper places
purposefully illuminated.

I look up from below.
I see them but stay dry.
Breathing, reminds me I'm a mammal,
but my skin is soaked in the memory of swimming.

The feeling of pressure and the sounds of the deep.
So much potential.

The temperature changes and gravity is no more.
Blissfully lost in daydreaming, about my past and future.
I see the Barbel.
A sense of home.

Silhouetted people, watching a window to another way of living,
And I am there, wondering, surrounded by water.

This Place

This is not an aquarium.
There is no clamour of sound.

There are no children running,
No riot of colour and banners.
I will not rush to the next exhibit
To see manta rays with smiling mouths.
I have no map of the things I will see
- or my money back.

This,
Is a window.
It is a portal to another place.
I am a guest in the fishes' silent realm.

Temperate, murky and raw.

In a bunker beneath the surface,
This art installation in the riverbank,
All is concrete and grey.

Through thick glass, the water lies unknown.
A grainy picture of the river beyond.

Passionate others look on in suspense, lingering.
Light on their faces, waiting,
As leaves dance by in playful Autumn.

Then the barbel, inching upstream, enters stage right.
A connection, my friend, we observe each other.
This,
Is your world.



Three weir-d poems based on thoughts, feelings, and experiences had by the three authors before, during, and after a visit to Diglis Weir underwater viewing gallery, Severn River, UK.

Read poems in PDF format.

implemented this step for the weir-d experience at the viewing gallery in the Severn River, we each used a different approach to write a poem. Some of us wrote only about our own individual experiences while others brought different voices

together. With your poems drafted you are ready to decide how best to share your poems with each other and how to share your writing with broader audiences.

Step Three: Share Weir-d Poems

When we implemented this activity, we first read our poems aloud to one another and then agreed to use a common approach to move our poems into three unique audiovisual creations. Each audiovisual piece paired a still image representative of the poem, a reading of the poem, and English subtitles. We shared the three audiovisual pieces on YouTube. The goal with this step is to be creative and have fun with finding ways to make your weir-d experiences available to others and to encourage others to share their stories too.

The prompts helped us to capture a range of meanings held for the viewing gallery and associated spaces and objects, such as the river, weir, fish pass, and even aquariums. We each documented our embodied experiences before, during, and after the viewing gallery, and doing so provided us inspiration and content to broaden our dialogue in the next phases of our practice. The process of writing poems also helped us to (re)discover relations between self and other. We not only recollected fragments related to our experiences in the viewing gallery when writing,

but assessed and integrated feelings about places and memories. Our writing also promoted compassion, helping us to better understand how different lived experiences influence how each of us relates to humans and nonhumans. The activity helped us to better understand the perspectives of each team member in relation to different underwater environments, sparking discussions on how each of us perceives our shared research interest based on lived experiences. We learned together through the activity and began to develop a stronger sense of community and team with one another.

We hope that this “creative connections with rivers” toolkit inspires readers to explore these activities as ways to connect with rivers and other environments around us. It is our hope that the flexibility built into the activities and the reflections that we shared from our own and others’ experiences with these activities, inspires others to pick them up, to explore new places alone or with others, and to be playful when implementing the activities in new spaces.

All images, PDFs, and videos, are courtesy of the authors.

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About the Author

Stephanie takes a multidisciplinary approach to problem solving and learning and likes working at the interface of arts and sciences. She is particularly inspired to design interactive activities with people of all ages, particularly children and teachers, to engage with their local places and outdoor environments.

Daphne is a creative science communicator and researcher. Her current practice and focus are on research engagement and communication of findings from all STEAM disciplines through arts-based methods. She is particularly interested in discovering creative and engaging ways to address both expert and non-expert audiences of all ages for educational and enrichment purposes.

Merryn’s interdisciplinary research draws on geography, psychology, and social science, and she has a longstanding interest in using creative and innovative methods to engage diverse publics with environmental issues. She is particularly interested in intergenerational research and the potential of creative methods to help people connect with nature and articulate intangible relationships with their environments.