Learning that matters: Revitalising Heathcote’s Rolling Role & the Dr Lister for the digital (STEAM) age

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THE ISSUE?
SEGMENTED, DECONTEXTUALISED CURRICULUM
> LACK OF CONNECTEDNESS, MEANING AND ENGAGEMENT

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<thead>
<tr>
<th>Time</th>
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<th>Tuesday</th>
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<tr>
<td>9:00 - 9:30</td>
<td>Reading</td>
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<td>9:30 - 10:00</td>
<td>Writing</td>
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<td>Spelling Focus</td>
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<td>Handwriting</td>
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<td>11:45 - 12:15</td>
<td>Chinese</td>
<td>Maths</td>
<td>Science [Even Week] (APT)</td>
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<td>PE</td>
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<td>Integrated Studies</td>
<td>Art (APT)</td>
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<td>2:30 - 3:00</td>
<td>Integrated Studies</td>
<td>Integrated Studies (Library Booked)</td>
<td>Music (APT)</td>
<td>PE</td>
<td>Serial/Finish things off</td>
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<tr>
<td>3:00 - 3:30</td>
<td>Integrated Studies</td>
<td>Integrated Studies (Library Booked)</td>
<td>Music (APT)</td>
<td>PE</td>
<td>Assembly</td>
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BE WHAT YOU WANT TO BE cqu.edu.au
Rolling Roll – what is it?

- The concept of Rolling Role is to involve different groups or classes in building a community that then faces some kind of change. The initiators create a common context and agree to the key features, affairs and concerns of the community. The students/children are then involved in building the community, the lives, events and artefacts of it and add to developments.
- Work is often left incomplete so another group can take it forward and continue the drama.
- Work produced by classes is publicly open and available to stimulate other work.
- Heathcote suggested this work lends itself to sharing through something like a website.

Learning that matters AND
Bringing students to understand that learning matters

Learning that matters

What matters to my community?

What matters to me?

What matters for our world?
Rolling Role history

1980s – Developed concept with New Zealand teachers Don McAra & Sally Pearse – overcome tyranny of multiple classes of short duration, potential to connect learning across the curriculum (McAra 2D article)

1980s-90s – Rolling Role projects with post graduate students and workshops (The Jarrow three, Masters research - Claire Armstrong Mills, Joan Kerley)

1990s – Rolling Role tapes – 16 tapes – at time of National Curriculum in England – seen as a way of promoting trans-disciplinary and connected learning

2002 – Heathcote paper ‘Contexts for Active Learning’ Rolling Role one of four main methods described

2012 – Pam Bowell proposes revisioning Rolling Role for the Heathcote Reconsidered Conference

2013 – The Water Reckoning Project developed, 5 sites responding to common pre-text, sharing work via digital platforms – www.water-reckoning.net

2016 – Davis publishes book ‘Learning that Matters’ this includes summaries of the Rolling Role tapes and research about Rolling Role
Builds on Mantle of the expert & drama inquiry processes

Mantle of the expert pioneered by Heathcote in the 1960s

Involves the creation of a fictional world or frame where students assume the role of experts in a designated field

It acts as the means for students to investigate, acquire knowledge and problem solve, with them having a real purpose for learning and discovering

The processes she used might include working in role and introducing students to a ‘commission’ (such as a museum engaging an archaeological team)

Processes might involve mimed activities, improvised interactions, interviewing characters in role, writing letters, creating artefacts, engaging in research and building on work from other curriculum areas

The teacher’s role is to guide the process and the drama, stepping in and out of role as appropriate to stimulate, question, motivate and reflect.

(‘Mantle of the Expert’ Heathcote & Bolton, 1995
The Treatment of Dr Lister – video with John Carroll)
Rolling Role – Mills (teacher who worked with Heathcote on the Rolling Role tapes)

- **ROLLING** is the aspect of the process that distinguishes it from other educational methods in that it exactly describes the dynamic of constantly moving forward, without moving to any predetermined end. As with a wheel, the focus of the drama is fixed. Nevertheless, the purpose of the wheel is to move, and no matter how far or fast it moves, it has a constant relationship to the axis.

- **ROLE** in this context refers not to the sort of role-play normally associated with drama (although this will be incorporated) but to the active participation of pupils and staff in tasks arising from the context. They engage with these tasks from a specific point of view or frame of reference so that the point of view creates a responsible and caring attitude to the quality of outcomes. It is this frame of reference, which gives the work ‘a future’ and creates investment by the pupils in their work. (Mills n.d., 1-2)
Phase I - Establishing the system, community and key mediating tools

Establishing the community

Establishing the object and outcomes including academic outcomes

Fashioning the dramatic context & non-negotiable materials (tools and artefacts)

Phase II – Negotiating a pathway through the zone of proximal development

Building engagement through framing and keying

Engaging participants in tasks and interactions in ‘now’ time

Phase III – Publishing, rolling and reviewing outcomes

Publishing and recycling for investment

Reflecting and evaluating

Rolling Role process – Davis (2016) based on the Rolling Role tapes
Finding the dramatic context

- A context must be found that is appropriately rich and complex enough to allow for a number of classes to work on it at the same time, with potential for them to be engaged in different subjects (for example, English, Science, Art, History and Drama).

- In most cases three different communities/perspectives and timeframes are identified as being connected to a specific problem and point of tension. (Mills, 1989-90)
Context 1 – Inhabitants of Ardus Unda before the disaster

Point of change/tension – Should the original site become open to tourism. If possible, should the original inhabitants be unfrozen?

Context 2 – Researchers who are researching the history of Ardus Unda

Context 3 – Emissaries, survivors & descendants of Ardus Unda

The Water Reckoning – Rolling Role Project
www.water-reckoning.net

Jason deCaires Taylor imagery
Some other key concepts

- **Framing** – provides the point of view, which includes the power to operate in a social encounter. It is something we all understand, as we enter a social event we do so with a particular point of view already established and that is the affective zone of our lives.

- **Keying** – is when we enter a social event we pick up clues as to what’s going on here and therefore how we might behave. In the classroom, cues can be offered or given to the class by the teacher to help them. (Tape 3)
Selecting and creating the right ‘boundary crossing’ tools
Heathcote talked of ‘non-negotiables’

Classroom action outside the dramatic frame

Committed action within the context of the dramatic frame

Interactions between these frames and potential metaxis

‘Real’ life

Dramatic world

Mediating tools & activity

Boundary crossing - Mediating tools & activity

Mediating tools & activity
WALL DISPLAY SET UP IN DRAMA ROOM

ROCK PAINTING No. 1

Label: Fish Ritual-The Great Fish
Basic Facts 50' x 30'
Limestone Overhang

(Dotted lines show rock fractures)

Central painting naturalistic painted in acrylic to represent aerial view. Lake supposedly in upland Brazil.

(3' x 5')

Rock painting “copies” were 1'2" x 1'6". Drawn in charcoal and white conte on brown paper to represent rock. Figures simplified, stylized & symbolic.

X = sites of rock paintings

O = village sites of descendants of rock painting tribes

--- = sites surveyed for possible dams—marked in chalk

all negotiated with class—i.e. their placings

No. 2.

Label: Canoe Fabrication Ritual
Basic Facts: 20' x 13' Ochre mudstone protected by overhanging andesite strata, subject to water damage.

No. 3.

Label: Fishing Methods Painting
Basic Facts: 40' x 45'
Friable Limestone

No. 4.

Label: The Harvest of Four Fish
Basic Facts: Friable Conglomerate 30' x 18'

No. 5.

Label: Fish Drying Painting
Basic Facts: 30' x 50'
Firm Andesite
Challenor Hall Hotel Morwick Village

From the desk of Dorothy (office management)

Management require a realistic projection of staff required running the hotel at full strength.

Please supply

1. details of all departments which will require staff e.g. cleaning, security, shop franchises (hairdressing, valeting etc)

2. approximate numbers of staff needed for each department/section/service and

3. suggestions regarding the placing of advertisements (newspapers? magazines? trade publications e.g. The Cater and ideas for style(s) in language and format

* PS Pull your finger out – they’re panicking

Model job card

Job available ........................................

At Challenor Hall Hotel

Address Challenor Hall, Fenwick Village, Northumberland

Tel No (091) 4692761

Skills required include the following:

Applicants aged: 16 + 21 + any age to .................
Morwick; a village of great age
Long here from Saxon times:
Churchyard tombs give testimony,
That those who walk this place in present time
Bear names like those who lie long still in earth
When bones are found "where no bones should be"
Then stirs this place to find a true account.
THE FAMILY TREE OF GEN. SIR DOUGLAS ALBERT CHALLENOR.

GEN. SIR DOUGLAS CHALLENOR 1822-1879
m. AMELIA FORTESCUE-SMYTH (1859) 1838-1866

DOUGLAS (LATER GENERAL) 1861-1919 m. ANNE CAVENDISH (1866) 1866-1888

CAPT. DOUGLAS 1888-1915 m. (1915) MARY HOLDERNESS V.A.D.

DOUGLAS 1916- (1942) m. CAPT. JANE WRIGHT 1919-1967

PHILIP 1953-

SALLY 1953-

HANNAH 1955-

PETER 1958-

HILARY 1950-

JASPER 1962-

Jon 1965-

EDWARD

RUPERT 1864-1870

HENRY (RT. HON) 1863-1919 m. LADY PENELOPE WILTON (1901) 1877-1944

ALICE 1905

EDWARD (M.P.) 1906 m. AMELIA 1906-1975 (1926) 1906-1975 m. EVELYN 1899-1962

JOHN 1894-1915

HILARY (MALE) 1896-1916

M. EVELYN 1899-1962

JOANNE 1929-m. (i) SIR PHILIP LATHAM (1948)

HILARY 1926-43

m. (ii) PETER NASH (1960)

EDWARD 1926- m. GILLIAN (1951) ARMSCOLE

1950-

2050-
Different dramatic conventions

- Enacted Role
- Effigies
- Portraits
- Identikit creation of role
- Life sized model
- A conversation overheard
- A reported conversation
- Finding a cryptic message
- Rituals & ceremonies
- Formal demonstrations, meetings, briefings

- Second hand account
- A written account or report
- A story told about another
- A letter in the voice of the writer
- Action as if from a film
- Creation or re-creation of painting or photograph
- Finding or drawing up plans
- Drawing or map
- Rules or instructions
- Clothes or artefacts of a character, time or place
Key role of publishing

- The way the project actually ‘rolls’ is that work is often left incomplete, but published and shared, so other groups can use it and take it forward to continue the drama.
- Embodiment and crystallisation of ideas and emotions.
- This helps validate the work created, and extends the community of practice and collaboration.
- Shared ownership and negotiation of the creative outcomes that can be shared with the world.
- Artefacts can be endowed with new meaning.
Water Reckoning
The dramatic pre-text

# Discovery of a lost culture of frozen people underwater who experienced times of crisis
# Responding to a message in a bottle about the history of ‘Ardus Unda’
# Who were these people and what happened?
# What did their emissaries learn about stories from elsewhere around the world?
# Is it possible to help the frozen people or restore them to life?

Jason deCaires Taylor imagery
Queensland beach photo shoot & response

Queensland beach shoot – character & symbolic clothing

Greek follow on
For more info see:

Learning That Matters: Revitalising Heathcote's Rolling Role for the Digital Age
Susan Davis Central Queensland University

STEM/STEAM EDUCATION

Science, Technology, Engineering, Maths (US, UK, Aust etc)
Interdisciplinary and applied approach
Real world problems and paradigms – inquiry learning

STEAM + Arts (often assumed/subsumed)
Design thinking
Creativity and arts essential to innovation
The Dr Lister drama

• was developed by renowned teacher Dorothy Heathcote and one of her key collaborators was an Australian drama educator – John Carroll. The project used drama and creative pedagogies to explore the significance of work such as that of Joseph Lister in microbiology and surgery and to also examine the difficulties innovators must overcome to bring about major changes in a field.
Dr Lister drama – extract from John Caroll’s PhD

To view see:

- [https://vimeo.com/123791259](https://vimeo.com/123791259) Password: drama
A contemporary re-imagining being planned…

- exploring other affordances now possible in the context of contemporary developments and through the various media and digital technologies. It also provides a means into examining contemporary issues and future challenges that still exist in relation to antibiotic resistant infections, pandemics and the spread of disease.
Ways in to a new drama...

Welcome, shake hands, some of you will have something dobbed on your hand... keep meeting and greeting!
SAVE LIVES: Clean Your Hands 5 May 2017 - Fight antibiotic resistance (World Health Organisation)

it's in your hands

• Our calls to action are:
  • Health workers: “Clean your hands at the right times and stop the spread of antibiotic resistance.”
  • Hospital Chief Executive Officers and Administrators: “Lead a year-round infection prevention and control programme to protect your patients from resistant infections.”
  • Policy-makers: "Stop antibiotic resistance spread by making infection prevention and hand hygiene a national policy priority."
  • IPC leaders: "Implement WHO’s Core Components for infection prevention, including hand hygiene, to combat antibiotic resistance.”

http://www.who.int/gpsc/5may/en/
The contemporary and everyday entry?

Handwashing hygiene dance ‘thing’ - https://www.youtube.com/watch?v=Z77Cvg0vGcU

Hand hygiene – back to the basics
“one of the simplest, low cost but least accepted forms of infection prevention: hand hygiene.”
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249958/
Contemporary issue....

7 Steps of Handwashing with Hand Sanitizer

Step 1
Squeeze a small amount of sanitiser gel/soap over left palm and dip all fingers of right hand into left palm, and vice versa.

Step 2
Palm to palm

Step 3
Right palm over left dorsum and left palm over right dorsum

Step 4
Palm to palm, fingers interlaced

Step 5
Backs of fingers to opposing palms with fingers interlocked

Step 6
Rotational rubbing of right thumb clasped in left palm and vice versa

Step 7
Rotational rubbing of right wrist and vice versa. Rinse and dry thoroughly.

Image from 5 moment hand hygiene
Surgical Site Infections (SSIs) are still of great concern in the 21st century. Hand washing continues to be a vital strategy in the fight to reduce the risk of infection and what struck me about surgery in Lister’s era, the late 19th century was the use of alcohol as a hand hygiene product. Three to five minutes pre-operative cleansing of the hands using 90% ethanol was common practice amongst surgeons of that era. The efficacy of alcohol to kill microorganisms on the skin has therefore been known for sometime and with the recent introduction of alcohol based surgical scrub solutions (ABSS) in many Australian operating theatres, it feels like we are back to the future!

Moving to ABSS will require a change of culture in our operating theatres – the ritual of the surgical scrub is one which many instrument nurses may be somewhat reluctant to give up – that five minutes or so at the sink was good thinking time when you could gather your thoughts and prepare yourself mentally for the procedure ahead. Replacing that with a 90 second rub with alcohol based product will not come easy to some! For the surgeons too, it is a big change, although having witnessed some surgeons undertake what passes for a surgical scrub by a momentary waving of hands under running water, an application of alcohol will at least kill a few bugs!

It seems we have come a full circle in the 150 years since Lister first laid the foundations of infection prevention with the introduction of ABSS in the 21st century. It will become one more strategy we can use to reduce the risk of SSIs that continue to be a cause of morbidity and mortality in our hospitals

Historical issue – for Joseph Lister and his wife Agnes
Future issue – contemporary scientist with a new innovation for aseptic paint

Dr James Chapman

Head of Science

Material Science & Chemistry Principal Investigator

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Alternative Phone: +61749306493
Skype: james...chapman
Google Scholar:
Lister's carbolic spray
Lister developed a hand spray to deliver a dose of his antiseptic to the wound site. It was later replaced by a larger tripod-mounted model to prevent doctors and nurses coming into direct contact with the corrosive acid droplets it produced.
Context 1 – Past issue - High mortality rates from infection, including after surgery. Dr Lister has a revolutionary idea for trying to prevent gangrene and 'supporation'.

Point of change/tension – how do innovators convince people to change their behaviours?

Context 2 – Present issues - Schools and workplaces are incubators for illnesses especially during flu season. What messages aren’t getting through?

Context 3 – Future issues - How do we prevent or deal with pandemics and the rise of antibiotics resistant bacteria and diseases? How do scientists innovate, and then how do they develop and disseminate their ideas?
Planning the process

Would you like to be involved in a pilot?

Email me at: s.davis@cqu.edu.au