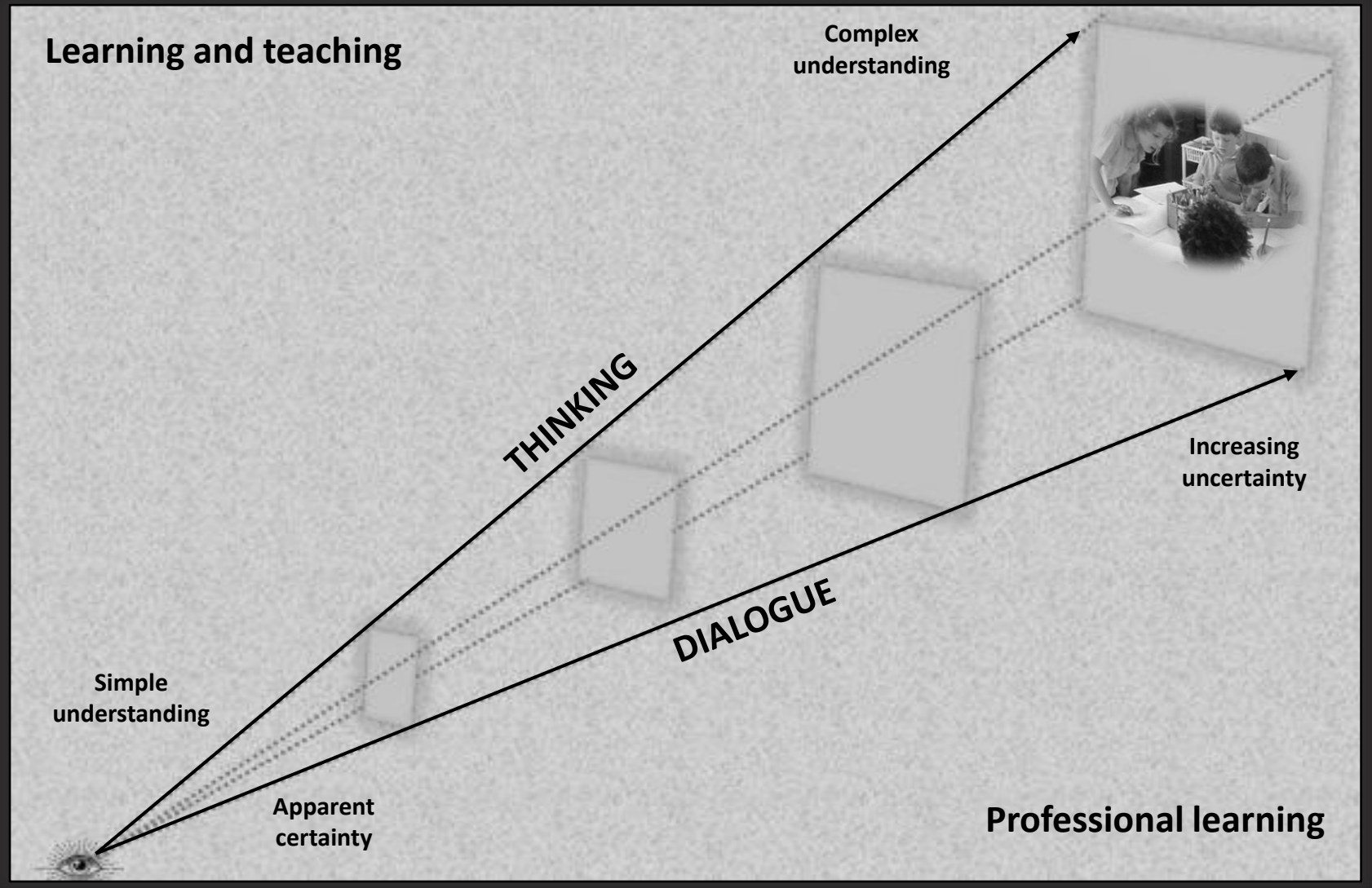
IDEAS INTO PRACTICE
Provoking inquiries



IDEAS INTO PRACTICE GATEWAY
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Possibilities for <u>Question-led learning</u> to provoke thoughtful conversations

Scale as is appropriate

Being cultural

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Recognizing benefits is one thing – limitations are just as important

- The samples are in a specific format knowing that there are **different ways** to plan for learning
- The samples have a commentary attached which is designed to **incite discussion**
- The samples are **not recipes** instead the ideas in them have value if applied to 'real' inquiries
- The samples need to be **personalised** to learners and **customised** to community expectations
- The samples may have specific foci but the approach to learning is an **integrated one**
- The samples need to be **negotiated** through processes varying from open to guided to directed
- The samples **differ in duration** depending on the content, learning goals and the GGQs selected
- The samples in some cases refer to **useful tools** only to indicate potential possibilities

Being knowledgeable

Question-led inquiry into action

This three-phase process helps to give inquiries purpose and coherence.

The structure and the questions often need to be refined, even transformed, as an inquiry progresses.

The samples that follow enact this process

For details go to – frame 25

#1 – Select generic generative questions (GGQs)

FORM	What is it like?
FUNCTION	How does it work?
CAUSATION	Why is it like it is?
CONNECTION	How is it connected to other things?
CHANGE	How is it changing?
PLACE	What is the role of place here?
RESPONSIBILITY	Who might be responsible?
CARE	How could people care for others?
ETHICAL	Where is the ethical reasoning?
AESTHETIC	How is aesthetic sense manifest?
THINKING	How is the thinking evolving?
INNOVATION	What might innovation add?

For details go to – Frame 16, 17, 18, 19

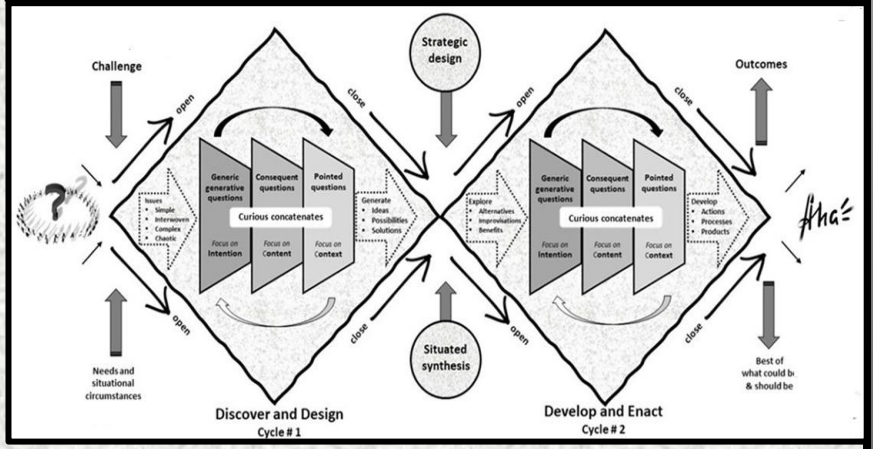
Select only 2 or 3 of the most relevant

2 – Conduct inquiries

Getting started	**Positioning performances** - *focus on prior learning, knowledge, experience, and interests, and on aspects of challenges that need to be explored or considered.* **Opening performances** - *select a few relevant GGQs, together with the goals for inquiry associated with them, and develop shared understandings of what they mean.*
Moving forwards	**Designing performances** - *devise CQs, and PQs if necessary, for selected GGQs, prioritize and translate them into practicable inquiries that contain realistic tasks to enact them.* **Exploring performances** - *conduct investigations customised to the demands of the design tasks, the capabilities of individual participants, and their expressed interests.*
Drawing together	**Culminating performances** - *build on inquiries by extrapolating what has been discovered to different contexts and to new or emerging challenges, and so doing by diverse means.* **Reviewing performances** - *backtrack to the initial questions and goals for inquiry to determine what has been achieved or needs to be addressed, and where to next.*

Conduct inquiries in 2 cycles

3 – Engage in inventiveness



People the world over

Being cultural

Situated scenario
People live in different places

Challenge
Invent ways to build relations among people

The GGQs selected by most learners were - Connection and innovation. The CQs that emanated from these questions identified good 'happenings' as well as 'problems'

Getting started

Positioning
- Show a video on the evolution of global populations
- Invite a refugee or a migrant or a significant community person to talk about their life experience
- Think-pair-share in small groups to identify issues for exploration – board and group learners' perceptions

Opening
- Have learners select two contrasting issues to explore and share the reasons for their choice 1 to 1 in pairs
- Have learners discuss the meaning of a set of GGQs and choose two or three to direct their studies
- Negotiate personal and shared goals in table groups, and post shared goals for each group on a class display board and maybe on the school Intranet 'news' page

The shared goal was to build cultural understanding by exploring differences within and between communities and countries

Moving forwards

Designing
- Brainstorm CQs and PQs that emanate from the selected GGQs, prioritize and then record them in 'my personal log'
- Have each learner produce, and share with a friend, a storyboard of his or her planned inquiries into the most important CQs
- Hold 'table group' conversations to refine individual plans and look for links between the planned inquiries from different table groups

Exploring
- Teacher to direct teach (a) world geography – countries, places, environments and major centres of population and (b) conduct whole class conversations on 'what makes up a community'
- Have learners study the two contrasting issues they selected earlier, and share the outcome in pairs
- Give ample time for learners address their CQs through investigations into one community of their choice
- Encourage learners to seek ideas and information from the Web, videos online and the school Intranet, personal experiences, and library resources etc.
- Ask each learner to produce a brochure of life in their community promoting how it could be enhanced

The direct teaching involved a United Nations documentary – *What is sustainable development.* The geography component included an extended 'mapping exercise'

Drawing together

Culminating
- Have each learner prepare a PowerPoint presentation or a Mandela on improving relations in their selected community
- Negotiate in pairs on writing a letter to a community group or government authority on the need to improve relations among people and how that might be done
- Have each learner write their letter making sure they emphasise connections and areas for development

Reviewing
- Require each table group to produce and post on the class display board a segment of a 'wheels' diagram of key issues in building relationships among people and between communities
- Post a photo of the outcome on the school Intranet asking for comments and suggestions
- Record personal interpretations and reflections in 'my personal log' and retain own work for appraisal and assessment later

The outcomes were extensive with suggestions made in how community relations could be improved. Enthusiasm and commitment was reflected in sticking to the tasks in hand

Two cycle inventiveness
Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Storyboard Contrasting study One community Brochure	PPT presentation Letter Wheels diagram Post

Counting the numbers

Being numerate

Situated scenario

Beyond guesswork to precise predictions

Challenge

Explore percentage (%) and proportion as predictors

Getting sufficient items took time and required advance planning. Much discussion took place individually and in small groups around weight and volume issues

Getting started

Positioning

- Ask learners to bring in all manner of food and household packaging items
- Have learners working in collaborative pairs record weight, volume and proportion of ingredients etc.
- Record the results on a class 'Supermarket' information board

Opening

- Hold a circle group conversation on the meaning and potential impact of the data collected
- Ask each learner to identify at least five of their 'favourites' from the 'Supermarket' board
- Have each learner to rank order their selections from 'least to most' against criteria such as information on weight, volume, ingredients, advertising appeal; and share the result in 'table groups'

The shared goal was to build understanding that numbers like % help to make things precise. The GGQs were function and responsibility

Moving forwards

Designing

- Use the data collected to select GGQs to guide studies on relative proportions of ingredients
- Ask 'table groups' to devise consequent questions (CQs) to guide what information should be included on common food and household items
- Mix one person from each 'table group' into a new discussion group to share their group's 'guidelines'

Exploring

- Teacher to direct teach (a) percentage as a concept of x in 100, how to calculate, graph and use it to make predictions independent from raw data and (b) the connectedness between percentage and proportion
- Have learners individually carry out an exercise through which they translate a set of percentage figures for numbers greater than and less than 100
- Have learners work In pairs to throw a dice 10, 20 30, 40 and 50 times, record results and graph % chance of numbers coming up & determine if there are patterns
- Give learners a batch of data on % from a survey or a competition and have each learner graph the data; and then discuss patterns, trends and predictions in 'table groups'

The direct teaching involved whole class presentation and much conversation among small groups displaying similar levels of need or difficulty

Drawing together

Culminating

- Have learners explain how they have come to understand % and proportion, and display their comments on a class communication board
- Conduct a whole class survey on my 'favourite' from four or five 'goodies' such as Snickers, soft drinks, chocolates and toffees etc., with learners voting 'proportionately' – 1. 2 ,3 . 4 in order of their choice
- Calculate and display the results, and discuss in relation to the functional value of % and proportion

Reviewing

- Relate the way the whole class survey was carried out to the responsibilities involved in conducting surveys on community and national issues
- Have learners record their views on the value of % in making predictions that are reliable and authentic
- Determine whether surveys of opinion in their own class should be a simple majority or based on proportional data

Learners could see that number calculations are not just a question of applying an algorithm. It requires understanding and careful application to lived experience. Learners could see % as a means to establish patterns and relative value

Two cycle inventiveness Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Supermarket data Guidelines % activities Pattern/predict	% & proportion Class survey Responsibilities Voting systems

Keeping fit

Being healthy

Situated scenario

Prevention is better than cure in personal and community health

Challenge

Healthy living is a combined body and mind issue

The shared goal was to build a personal and collective understanding of good health practices and how to enact them

Getting started

Positioning

- **Show and discuss the video 'Well being for children – healthy habits Wellbeing for Children: Healthy Habits (youtube.com)**
- **Have learners in table groups map their health habits and share at circle time as a summary chart or map**
- **Think-pair-share in small groups to identify issues 'I/we would like to explore' – post on 'healthy living display board', organize the range into like groups**

Opening

- **Have learners in table groups select one 'health' issue and one 'conditions' issue to investigate and negotiate personal and shared goals within them**
- **Record 'my goals' and why they are important for me in 'my personal log'**
- **Post shared goals on the healthy living board and see how they fit with intended work among other groups**

The GGQs selected were- causation, connection and innovation. The CQs focused on good 'happenings' and significant health 'problems/conflicts' in communities

Moving forwards

Designing

- **Teacher to lead circle time discussion on GGQs and their meaning, and establish a focus on two or three**
- **With these GGQs in mind, brainstorm CQs and PQs that relate to both physical and mental health – see 'Useful tools' - for an anonymous (private) strategy**
- **Invite a refugee or a migrant person to talk about his or her life health experiences and living conditions**

Exploring

- **Teacher to direct teach (a) parts of the body and their functions and (b) issues that can affect mental health**
- **Have learners investigate the 'health' and the 'condition' issue their table group selected previously**
- **Have each learner carry out action tests for aerobic fitness and weight/height/size ratios, taking care to protect learner's sensitivities and privacy as required**
- **Ask learners to talk in table groups about their favourite sports either as participants and/or viewers, and tabulate the range of interests across all groups**
- **Have each learner select a sports icon/hero and write an illustrated story about him or her, giving reasons why the person is special**

In the direct teaching careful management of the fitness exercises and the sharing of information was needed to limit competition and stigma from being or feeling unhealthy

Drawing together

Culminating

- **Have whole group work as a team to construct a 'daily fitness program' for their school that covers – balance, agility, performance and coordination skills**
- **Produce 'activity cards' for the daily fitness activities for use by other learners, and trial them to determine feasibility and support issues required**
- **Have learners relate physical fitness and mental fitness with feeling good about self, emphasising causes and connections**
- **Encourage each learner to write in their 'personal log' about their health and my future health does/don't's**

Reviewing

- **Reflect in table groups on how the selected GGQs helped in understanding physical and mental health**
- **Present and share table group perceptions by means of a Venn diagram or a Mandala or other visualization**
- **Have each table construct a support poster on ways people can help themselves and others with their health challenges and/or difficulties**

Exploring what might be done to enhance personal health, especially mental health, could be a sensitive issue and challenging at times. The right for people to opt in or out would be ongoing

Two cycle inventiveness
Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Visitor experience Fitness tests Favourite sports Sports icon	Daily fitness Trial program Feeling good Visualization

Artistic exposé

Being expressive

Situated scenario

Appreciating feelings/emotions are a key part of living

Challenge

Explore the emotional and practical impact of caring for animals

Some learners, especially those with reticent personalities, might find talking about their feelings quite challenging. Creating a sensitive and appreciative culture could be demanding, yet essential

Getting started

Positioning

- **Have learners bring photographs of their pets or their favourite animal - *school support service* to scan onto the school Intranet – give ample time for this process**
- **Ask learners to discuss in small groups what makes 'their animal' special to them, and share these feelings with the whole group at circle time**

Opening

- **Ask learners to talk about their emotions during these conversations with the teacher or aide scribing them onto a display board**
- **Arrange for an animal welfare person to talk about caring for animals – the 'good' and 'bad' practices**
- **Have table groups negotiate which group of animals they would like to be the focus for their inquiries**

The shared goal was to understand personal and collective feelings related to caring for animals. The GGQs selected by the teacher were – Responsibility, care and ethical

Moving forwards

Designing

- **Hold circle time for learners to come to understand the meaning of the selected GGQs and how they translate into CQs for caring for animals**
- **Explore the contributions 'Seeing eye dogs' make to people's lives and how dogs give emotional comfort to people, especially sick children and elderly people, either in hospitals or at home**
- **Ask each learner to sketch responsibilities in caring for the animal group selected by the people at their table, and display the sketches as a class montage**

Exploring

- **Teacher to direct teach perspective from two angles - depth in an image or painting and the idea of symmetry and asymmetry**
- **Ask each learner to create a painting or sculpture directed towards 'why I love animals', and write an interpretative commentary to go with their work**
- **Play the music 'Carnival of the Animals' by Saint-Saëns and pose the question – 'what pictures did the music generate for you'? - give time to discuss**
- **Have learners create a short drama in table groups on 'our responsibilities with animals', and perform it at a series of circle times**

The direct teaching involved making connections between different mediums for the expression of personal and collective ideas, feelings, and emotions

Drawing together

Culminating

- **Have learners in groups of three create a visual presentation or video on ways to care for animals and add the final version to the school Intranet**
- **Ask each learner to write a poem about why people and communities should care for animals (ethical) and the responsibilities that are involved (care)**
- **Have table groups produce a brochure (written or electronic) on 'thinking about endangered species'**

Reviewing

- **Require learners to create a concept map that shows responsibilities and ethical issues in caring for animals, and post them as part of a collage on the class display board**
- **Ask learners to extrapolate the values underpinning caring for animals to looking after endangered species, and post them on the class display board**
- **Have learners record personal reflections in 'my personal log' and keep their art for appraisal**

Teacher help was needed in moving thinking towards extrapolation, and for ways to structure a poem. Transformation from personal/direct experience to other scenarios was a key part of enacting the selected GGQs

Two cycle inventiveness Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Seeing eye dogs	PPT presentation
Caring for animals	Poem
Painting/sculpture	Concept mapping
Music and drama	Values behind care

Our big story

Being literate

Situated scenario

Young learners need to know how to write personal stories

Challenge

To build 'my own story' based on a well-known children's story

The concentration span of the young learners was sufficient to view a ten-minute video in one go. The teacher gave them time to talk about the characters and how the story unfolded

Getting started

Positioning

- Show short video of the Jungle book story - FY23Q4 DC AcrobatShowPo VID Story 15s 1 (youtube.com)
- Have teacher lead a conversation on the learner's reactions to the story using a round robin process or similar cooperative strategy

Opening

- Have learners in groups of three talk about the animal characters in the video and how they behaved
- Display the ideas that emerged from each group on 'Our big story thinking wall'
- Ask each learner to draw a picture of one character and place it beside relevant ideas on the display wall
- Use a circle group discussion to identify two characters on which to model 'our big story' – Baloo the bear and Kaa the snake were chosen

The shared goal was learning to write an illustrated story about human behaviour built around an animal character living in today's world.

Moving forwards

Designing

- Teacher selected two GGQs – Care and ethical – to shape how learners would create 'our big story'
- Have learners talk about the 'good' and the 'bad' in the way Baloo and Kaa behaved - listen to the music and words in the Disney songs
- Ask learners to brainstorm CQs, see – useful tools –for strategies on how to structure learners' questions around stories on human behaviour in animal form
- Ask each learner, with these CQs in mind, to design a pictorial story built around the characters of Baloo and Kaa as if they were people living in today's world

Exploring

- Teacher to direct teach (a) basic sentence structure – subject/verb/object and full stops (b) arrange spelling exercises around 20 of the most relevant words
- Have learners practice writing sentences using these 20 words one at a time
- Invite a 'Snake expert' to show live snakes and talk about their behaviour from first-hand experience
- Ask learners to create and share a full draft of their story with a friend seeking feedback and suggestions
- Produce 'my completed story' with all necessary edits
- Have each learner paint a picture with a sentence caption showing the 'message' in his or her story

The story writing was protracted with much one on one 'teaching' support from the teacher aided by designated/capable parents. Some learners needed help in writing an effective caption

Drawing together

Culminating

- Have learners talk about what was 'caring' and what was 'ethical' in the 'Baloo and Kaa' like behaviours in their stories
- Group the outcome of these discussions into categories and display as blocks in 'our big story thinking wall'
- Have learners in groups of three work out and practice how they will present their completed story and paintings at a special assembly for parents

Reviewing

- Take photographs of each learners' work as well as 'action' pictures of when they were working together
- Transform the pictures by putting them in a 'big book' (paper or electronic) on 'how we wrote our animal stories'
- Encourage each learner to produce a page for the big book with explanations in their own words

Connections between the GGQs, the initial opening activity, and the culminating processes was important in giving the learning processes coherence beyond busy work. The early language teaching was deliberate especially as it had to be interwoven with learners' questions

Two cycle inventiveness Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Behaviour in story Pictorial story My story Picture captions	Values blocks Present my story Work photographs 'Big book'

Energy flow

Being knowledgeable

Situated scenario

People live in diverse places with different resources

Challenge

Explore, create and invent sustainable energy systems

It could broaden the study if the spread of GGQs chosen encompassed all twelve GGQs. While form, function, connection, & causation may appear particularly pertinent, the other GGQs are no less significant in their potential impact on energy issues

Getting started

Positioning

- **Show video to stimulate discussion on differences between sustainable and renewable energy - <u>What is sustainable development? (youtube.com)</u>**
- **Have learners work in pairs to produce a fishbone diagram that shows sustainable factors and one side and renewable factors on the other, with each factor containing relevant sub-issues**

Opening

- **Have learners working in teams of three select two or at the most three GGQs to direct their inquiries**
- **Establish work responsibilities for these teams in researching specific aspects of their 'Energy Flow' inquiry and reporting their findings to others**

The shared goal was to explore balancing sustainability and renewability in energy systems within prevailing conditions.

Moving forwards

Designing

- **Have each work team identify and prioritize the CQs around which to plan and undertake their investigations – see 'useful tools' for strategies**
- **Identify criteria, with these CQs in mind, for assessing benefits and dangers of different renewable and sustainability strategies in specific circumstances**

Exploring

- **Teacher to direct teach by means of structured experiments (a) electrical systems and networks and (b) relationships between current, voltage and resistance**
- **Have learners in work teams of three to design and/or construct a circuit board that enables a flow of electricity to produce light, heat and sound signals**
- **Ask these groups to devise a simple robotic system to control the operation of their circuit boards**
- **Discuss the scope and limits of energy storage in terms of the conversion and conservation of energy and relate these issues to local and global energy issues and production processes**
- **Have each work team explore emerging technologies for energy storage and transmission and create a school information board based on their discussions**

Internet access via the school's mobile phones added to a just-in-time dimension as learners engaged in research activities. Criteria for proper and ethical use were made plain and monitored.

Drawing together

Culminating

- **Have each work team create an animated PowerPoint presentation or video on positive actions for renewable and sustainable energy systems emphasising the GGQs they have selected**
- **Ask learners to construct a table model of an energy system they see as desirable for the region in which they live with explanations for why it should be built**
- **Produce a set of guidelines for personal and school use on how to conserve energy and use it wisely**
- **Put the guidelines on the school Intranet and perhaps on the school Internet for community access**

Reviewing

- **Have each work group draw a storyline of their investigations and studies giving particular attention to the key concepts they discovered in relation to the GGQs they selected**
- **Hold an open day for parents and friends to see an exhibition on 'Energy systems and their development' as well as how I/we studied and understood them**

The composition of the work teams was crucial. A balance of capability was needed to encompass analytical skills, linguistic competence, organizational ability, together with a shared aptitude for working together

Two cycle inventiveness Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Identifying criteria Circuit boards Energy storage School info board	PPT presentation Energy systems Energy guidelines Study storyline '

Global challenge

Being knowledgeable

Situated scenario
Scientific responsibilities are linked to 'world' issues

Challenge
Address the challenge of climate change

The GGQs causation and change were especially pertinent to this inquiry. The CQs devised needed to be capable of research, not re-statements of the GGQs. The emphasis was on doable things.

Getting started

Positioning

- Stimulate inquiry by showing a David Attenborough:video -The Truth About Climate Change (BBC - Part 2) (youtube.com)
- Have learners and groups of learners follow up by studying the situation in Australia with the aid of BTN newsreels from the ABC

Opening

- Identify key issues that need to be addressed and board individual ideas via sticky notes
- Have learners in groups of three select one positive possibility and one negative issue to focus their climate change inquiries, and select two or three GGQs to direct investigations into these issues

The shared goal was to build a deep understanding of how climate change works and the ways human actions are responsible for some of the current climate instability

Moving forwards

Designing

- Have each group of three identify CQs and PQs, and then agree on a prioritized list for each table group
- Hold a whole class circle group discussion to work out how the pieces in the 'jig-saw' might form a comprehensive inquiry and how it might pan out
- Allocate table group tasks with goals made clear and responsibilities negotiated and accepted

Exploring

- Teacher to direct teach (a) heat absorption on light and dark surfaces (b) insulation from heat and cold, and (c) the conditions that affect evaporation
- Have each table group devise 'experiments' to deal with 'heat' in each of these situations using the 'junk boxes' of material available
- Have all table groups conduct the 'common fun task' of keeping a block of ice from melting as long as possible
- Ask learners to create visual maps of different responses to climate change in their own community and globally
- Set up, using a corners strategy or similar, and enact a mock forum on possible actions to limit climate change now and within the next ten years

Some future implications might be upsetting and depressing for some learners. These feelings would need to be sensitively addressed, not hidden. Much attention was given to encouraging 'what if' questions.

Drawing together

Culminating

- Have each table team present their findings and conclusions with a listeners/viewer's Q & A attached
- Require table groups to create a single model or multiple models of climate responsible - buildings, power generation processes and local community actions
- Produce a whole class collage of climate change as an issue and a personal responsibility including the need for national and international cooperation to take up the challenge in desirable and achievable ways

Reviewing

- Have learners tell their stories of how their thinking evolved with focused reference to the GGQs they have selected during the inquiry
- Record their reflections in their 'personal log' illustrated by photographs of their work
- Post photographs of written and model work on the school Intranet together with a list and brief description of the websites accessed

When outcomes from the learners' inquiries were being harvested it was important to keep the conversations on positive and realistic possibilities. Conclusions and suggestions needed to be 'evidence-based', not emotional outbursts.

Two cycle inventiveness **Strategic highlights**	Cycle # 1 Discover & design	Cycle # 2 Develop & enact
	Experimenting 'Fun task' Visual mapping Corners forum	Present findings System models Climate collage Evolved thinking

Discern significance

Multiple areas of learning

Situated scenario

Being discerning is becoming ever more important in a connected digitized world

Challenge

Discern, wonder and determine significance embedded in media productions

Variation in the GGQs selected reflected different perceptions and personal interests. Reorganizing groups took social compatibility and capability into account

Getting started

Positioning

- Introduce three articles for inquiry – such as a news release on sports science, opinion piece from a newspaper, a social magazine, or an online report
- Have each learner at their table group discuss which of these articles interests them most and why
- Negotiate to form new work groups of learners to examine the media article they have selected

Opening

- Ask learners in their new work groups to discuss which of a set of GGQs are most relevant and select two or three of them to direct their investigations
- Have learners, with these GGQs in mind, develop an agenda of issues to be explored and display them on the class 'thinking wall'

The shared goal was to analyze media articles and determine issues that impact on their veracity authenticity, and reliability

Moving forwards

Designing

- Have each work group identify and prioritize the CQs and PQs for exploring – presentation, structure, layout, appeal, linkages, and the flow of ideas
- Have learners in pairs analyze the language and media techniques used, and then share with their work group to produce a consolidated mind-map of issues

Exploring

- Teacher to direct teach (a) how written and visual media are constructed and guiding principles for clarity of meaning (b) introduce issues of bias and deliberate influence
- Have work teams examine - conceptual meaning, feelings and emotions, ethical issues, and empathy embedded in the article they have selected
- Ask learners from different work groups to share ideas on the power and persuasiveness of the article or material they are studying
- Ask each learner to post their three most important reactions (or impacts) on the class 'thinking wall' and then have the whole group categorise all of them according to – clarity, bias, intention and value
- Have each learner re-write or re-design the article or material they have studied to address issues and the principles they have raised

It was important to encourage learners and work groups to postpone hasty judgment before they had undertaken careful research and reflection

Drawing together

Culminating

- Have learners return to original table groups and analyze a BTN news report on TV, or similar, to determine truthfulness, relevance to them, appeal to the target audience, and global significance
- Have each work group prepare a set of guidelines for multimedia productions
- Use corners for individual learners or groups to support or oppose parts of the guidelines
- Share in a whole group – Forum – modelled on a conference style meeting (name tags, circled tables…)

Reviewing

- Have learners return to their table groups and produce a critique of the guidelines from their perspective and share on the school Intranet
- Have each table group create a 'News desk' video to address the issue of discerning viewers – giving careful attention to character roles such as – the anchor person, expert interviewees & interviewers, correspondents, general public etc..

The Forum gave a real-world sense to the media inquiry and an opportunity to model democratic behaviours and structures. Attention was needed to give quiet people a chance to speak

Two cycle inventiveness Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Different sources	Re-write material
Interest studies	Media sources
GGQs coherence	Guidelines forum
CQs/PQs appraisal	Video production

Assessment in action

An invented professional dialogue

Situated scenario

'Assessment' is an integral part of learning, not a tagged-on extra

Challenge

Make assessment a seamless part of strategies and processes for teaching and learning

Assessment proved a contentious subject due to different interpretations of its intentions, impact and implications. The selection of GGQs needed to promote openness to explore alternatives as well as the efficacy of extant practices

Getting started

Positioning

- **Review the impact of extant assessment processes – testing, multiple choice, common assessment tasks, learner's work - on teaching and learning practices**
- **Check out system requirements as well as expressed community expectations and prevailing attitudes**

Opening

- **Research the value of and processes for assessment 'of', 'for' and 'as' learning**
- **Identify attitudes and practices to assessment in different educational settings and select two or three GGQs based on that contextual understanding**

The shared goal was to research and trial ways in which different approaches to assessment might impact on current and future activity. Prominent GGQs included – function, connection and responsibility

Moving forwards

Designing

- **Construct a mind-map of a framework for assessment issues as an ongoing agenda for inquiry**
- **Translate this agenda into CQs for investigation around selected GGQs, group them and then prioritize them within and across groups**
- **Negotiate to establish work teams to take responsibility for specific aspects of the agenda, and the CQs associated with them**

Exploring

- **Survey parents and the community to ascertain their expectations and the kind of information they would like to receive**
- **Research innovative school practices in other situations and online, including alternative assessment processes**
- **Map connections and disconnects between current practice and innovative possibilities**
- **Explore logistical demands and computing systems for collection of learners' work and responding to system and community reporting requirements**
- **Investigate the ways learners' portfolios, records of development and/or achievement might help make assessment integral to teaching and learning processes**

The issue of assessment was a sensitive issue for many teachers due to feelings of exposure and judgement. A culture of support was essential in creating the conditions for hearts and minds to open

Drawing together

Culminating

- **Use a 'corners' structure with each group advocating for and justifying action in <u>one</u> of - the current system, a different system, professional learning required, and computing systems needed**
- **Subject each group's 'arguments' to a SWOT analysis – strengths, weaknesses, opportunities and threats and present a visual summary of the main threads that emerged**
- **Negotiate and develop a realistic strategic plan in the context of the resources that are available or required**
- **Create information sharing processes for parents and the school community**

Reviewing

- **Have participants in pairs and small groups reflect on the personal learning they gained from their assessment inquiries, and the demands on themselves and others for future action**
- **Establish vertical teams across different year levels to provide 'buddy' support and monitor ongoing professional learning needs**

Teachers and learners are partners in assessment that is integral to learning. Tasks such as collection of portfolios and records of development /achievement need to be shared

Two cycle inventiveness
Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Teams Possibilities Survey Logistics	Justification SWOT Strategic plan Reflection

Integration in learning

An invented professional dialogue

Situated scenario

Learning is interconnected, not compartmentalized into silos

Challenge

Explore Integration and connectedness in teaching and learning

When conversations tended to focus excessively on 'what is' the tenor often became defensive. Keeping 'what could be' in the forefront of minds was crucial

Getting started

Positioning

- **Hold a whole school workshop(s) using a small group strategy to consider 'what is' counterbalanced by 'what could be' in our school's teaching practices**
- **Record each idea on a sticky note and board on a 'picture wall' divided into 'what is' and 'what could be'**

Opening

- **Have teachers in work groups of three to discuss the issues that emerged on the 'picture wall' for what 'I do' in my teaching**
- **Have table groups identify a few GGQs to direct further study and negotiate a big picture of the spread of GGQs selected across all table groups**
- **Seek advice from teachers in schools where there is a history of using integrated approaches to learning**

The shared goal was to explore ways in which different approaches to integrated learning might impact on current and future activity in 'my school'. Overall, the GGQs selected by the table groups covered most of those listed

Moving forwards

Designing

- **Identify, pool, share and discuss related CQs and board as a categorized list(s) on the 'picture wall'**
- **Have table group members discuss how their conversations fit with what is known about how children learn – researching the Internet for latest findings as well as relevant theories and practices**
- **Develop a shared view of the values and potential actions required for teaching and learning to become integrated without specific skills being overlooked**

Exploring

- **Investigate how a question-led approach to teaching and learning might foster integration in learning**
- **Examine the difference between questions and questioning, and how they impact program planning, teaching strategies, and social behaviours**
- **Investigate how a focus on concepts or 'big ideas' might lessen content pressures and deepen learning**
- **Explore management issues that enable teachers to strengthen integrated learning in their practices**
- **Have table groups explore 'why' and 'how' integration in learning is important in the modern world and the potential role of question-led inquiry within it**

It was important to keep the tenor of conversations on 'best/good' ideas knowing that they are likely to be modified when put into practice. A key issue was to delve into the theory and practice of integration

Drawing together

Culminating

- **Ask each teacher or team of teachers to prepare an outline plan for an integrated unit of study for the learners they are teaching**
- **Share, critique, and enhance these plans through collaboration in their original work groups of three**
- **Have table groups identify practicable strategies for integration within a question-led learning approach**
- **Produce a set of principles to guide sharing teacher expertise, different groups of learners, and different parts of the curriculum and/or units of study**

Reviewing

- **Form 'buddy partners' to provide personal support when designing, modifying and improving the implementation of learners' question-led inquiries**
- **Set up 'expert' groups based on need/interest to create a 'bank of resources' on questions and questioning strategies that engage learners**
- **Invite contributions to a page on the school Intranet and Internet website that discusses the 'why' and 'how' of teaching and learning in 'my school'**

When working towards a shared set of principles for question-led learning, it was important to promote diversity of ideas and interpretations – that is, a sense of unity within diversity

Two cycle inventiveness
Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
What is & could be GGQs-CQs applied Question-led slant Integration benefit	Teacher planning Guiding principles Resources bank Buddy support

Agile spaces into action

An invented professional dialogue

Situated scenario

Flexible school building designs are replacing boxed layouts

Challenge

Explore ways to use flexible spaces in agile ways

During the envisioning process it was important to focus on future needs and possibilities and not let difficulties take over. Yet problems and impediments were, and needed to be, integral to the conversations

Getting started

Positioning

- **Search the Internet for examples of modern designs for school buildings and environments**
- **Explore the posts on the Internet - Randy Fielding, Author at Getting Smart – with a view to redesigning my classroom and nearby spaces**

Opening

- **Explore different strategies and styles for teaching and the philosophical basis behind each of them**
- **Envision how teaching and learning in 'my school' might change if learning spaces were more flexible**
- **Have teachers in groups identify issues that are inhibiting integration, problem solving inquiries, and question-led learning**

The shared goal was to create 'ideal' designs and models for 21st century teaching and learning. Participants were asked to select one GGQ from each category outlined on frame 14 to direct the envisioning process.

Moving forwards

Designing

- **Work in table groups to select three GGQs (one from each perspective on frame 14) and identify associated CQs/PQs based around redesigning learning spaces**
- **Have each table group produce an outline map or drawing , as detailed as possible, of their ideas on creating flexible spaces and environments for learning**

Exploring

- **Research opportunities learners gain through agile spaces to learn in different settings (modes) and in different ways (modalities) – see frames 119 & 120**
- **Research 'cutting edge' school designs and the functionality of different learning spaces – commons, learning studios, specialist areas, performing arts spaces, and their multi-purpose use**
- **Talk in small groups about differences in preferred ways of learning among the learners 'I teach'**
- **Consider practicalities and benefits of teacher teams - sharing learners, working in collaborative groups, sharing expertise and distributing responsibilities etc.**
- **Make suggestions on how 'I could' team with other teachers and work collaboratively them in planning and implementing inquiries and assessing learners**

Some people found future outlooks challenging, even depressing, and certainly daunting. These feelings had to be sensitively addressed, not hidden. 'What if…' questions helped people see beyond the current horizon

Drawing together

Culminating

- **Develop a set of principles for the design of modern educational facilities and construct a mind-map of how it would transform 'my school'**
- **Make recommendations on strategies for building and supporting collaborative teamwork in 'my school'**
- **Develop a set of flexible procedures to guide how teams of teachers should work together in catering for the diverse learning needs and interest of learners**
- **Build structures and processes for grouping and regrouping learners according the study units or tasks they are undertaking and the learning activities in which they are engaged**

Reviewing

- **Reflect on how 'my understanding' of learners' learning preferences and the flexible grouping of learners has evolved**
- **Review the requirement to balance inquiry-based learning with the sequential and ongoing development of learners' capabilities and skills**

Managing reactions like – 'it's not possible' or 'I doubt I can do it' was delicate. It was also challenging to balance vision with what was doable, and see strategic ways to get there over time

Two cycle inventiveness Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Redesigning space	Change principles
Teaching styles	Collaborative work
Designs trends	Needs grouping
Changing action	Balanced learning

Creative collaboration

An invented professional dialogue

Situated scenario

Collaboration is integral to creativity and innovation

Challenge

Build collaborative cultures in educational settings and strategic processes to enact them

At times it was difficult to keep the concept and principles of collaborative processes in the forefront and coral tendencies to produce a mechanistic process where 'one size fits all'

Getting started

Positioning

- **Ask people to work in small groups and talk about their experiences of collaboration, creativity and innovation**
- **View the video – Seven keys to collaboration by John Spencer– at table groups discuss the implications – benefits and pitfalls - for 'me and my school'**

Opening

- **Ask a person or group from the community to talk about their experience of working collaboratively**
- **Have table groups select two or three GGQs to direct and shape further inquiry into the relationship between creativity and collaboration**

The shared goal was to explore how creativity might be promoted/supported, and the role of collaboration in getting there. The spread of GGQs selected was wide with thinking, responsibility and ethical prominent

Moving forwards

Designing

- **View the video – Do schools kill creativity by Ken Robinson and have table groups record the main thoughts it provoked and display the results on the 'conference thinking wall'**
- **Negotiate CQs and PQs to investigate the ideas raised by the video**

Exploring

- **Provide three different scenarios through which to explore these questions, such as – exploring motivations and energy among learners, preventing bullying, using of outdoor environments for learning…**
- **Have table groups chose one scenario and produce a mind-map of the positive, negative and interesting ideas provoked by the video and post outcomes on the 'conference thinking wall'**
- **Explore in re-mixed small groups possible responses to the 'interesting lists' for each scenario, including 'crazy ideas' out of left field**
- **Work in pairs to create a fishbone diagram with collaboration on one side of the backbone and creativity on the other that shows how they enable learners to 'create something that has value'**

Building a climate of respect for personal endeavours and practices (what is) was a sensitive matter. Substantial conversations around 'what could be' were important

Drawing together

Culminating

- **Discuss at table groups ways and means through which 'I/we might' re-design, modify or transform my/our behaviour with learners and how 'I/we might' redesign parts of our learning program**
- **Produce broad consensus (at least tacit acceptance) of keys aspects of creative collaborations that are – positive, negative and interesting**
- **Use the video – by James Taylor to consider possibilities for enhancing collaborative teams in 'my school', both among teachers and among learners**

Reviewing

- **Have people share the 'stories of realization' that emerged from the conference deliberations and perhaps one thing I/we intend to work on**
- **Organize or participate in forming networks to continue dialogues to share ideas, solve problems and provide mentor support**
- **Consider the possibility of a 'good practice' website that would build a bank of practicable ideas**

One of the issues was to turn mindsets to possibilities for action and avoid a talkfest. The critical concern was to put theory into practice

Two cycle inventiveness Strategic highlights

Cycle # 1 Discover & design	Cycle # 2 Develop & enact
Collaboration idea	Consequences
Creativity in action	Key aspects
Practical scenarios	My intentions
Principles	Teamwork