(MM121207) QR Codes   Moodle Meet Dec 7 – 12, 2012

The Secret Language of QR Codes

There are hidden languages all around us – ancient mysterious ones like the hieroglyphs of the ancient Sumerians, the encrypted ones like Da Vinci's backwards and mirrored writing, modern ones like the HTML that encodes and decodes this page. We are consumers of code.

There are fun, inventive and informative ways to use these codes in an educational setting. This course is about how to use QR Codes to send messages so engaging that learners can't help but be drawn in. Keeping kids engaged in learning is one of the biggest challenges educators face, but QR codes could provide a solution. Why not leverage the "bring your own technology" trend and encourage the use of cell phones, iPods, laptops and tablets in the classroom? How about using QR codes to communicate with students in a new and creative way? This workshop offers ideas to get you thinking about how to use QR codes to engage students, whether they are at the elementary, high school or university level.

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Take-away:

The big take-away is that QR codes need to be planned and used where they will enhance and enrich learning and where they can do so better than any other form of tool. QR codes are a tool, just like any other, and need to serve students where no other tool can or like no other tool can. The examples of tasks discussed in this Meet (Topic 5) illustrate this point.

Topic 1: Questions You May Be Asking

Wait, aren't QR codes simply a marketing gimmick? What does QR stand for, anyway? And what the heck does all of that have to do with hieroglyphics and secret languages?

First task is to scan and read a code. This includes finding, installing and using a QR reader.

What are QR codes? What does QR stand for?
- QR Codes: From the Inventors (http://www.qrcode.com/en/index.html)
- QR = quick response (http://www.qrcode.com/en/index.html)

What are the "best" QR readers? Can I play if I don't have a mobile device?
- iPad and multiplatform:
  - Quickmark (https://itunes.apple.com/us/app/qr-code-reader-barcode-scanner/id529027209) (free, w ads)
  - QRReader for iPad (https://itunes.apple.com/us/app/qr-reader-for-iphone/id368494609)
  - Qrafter (https://itunes.apple.com/us/app/qrafter-qr-code-reader-generator/id416098700) ($2.99)
- iPhone and other devices:
  - QRReader (https://itunes.apple.com/us/app/qr-reader-for-iphone/id368494609) ($0.99)
  - NeoReader (http://www.neoreader.com/)
- BlackBerry:
  - Code Muncher (http://codemuncher.com/) (free, w ads)

- Android phone:
  - QRScan (http://www.appszoom.com/android_applications/productivity/qr-scan_crxwz.html) (free)
  - Barcode Scanner (http://www.androidtapp.com/barcode-scanner/)
  - Google Goggles (http://www.google.com/mobile/goggles/#text)
- Chrome:
  - add-in QR Reader for Chrome (https://chrome.google.com/webstore/detail/qrreader-beta/bfdjglobiolninfgldchakgfldifphic)
- IE:
  - bcTester (http://www.bctester.de/en/download.htm)
  - desktop/laptop QR reader (http://blog.qr4.nl/Zip-Handler.ashx?zip=Desktop-QR-Scanner.zip)
  - i-nigma (http://www.i-nigma.com/i-nigmahp.html)
- online:
  - ZXing Decoder Online (http://zxing.org/w/decode.jspx)
  - Online QR Code Decoder (http://blog.qr4.nl/Online-QR-Code_Decoder.aspx)
  - Online Barcode Reader (http://www.onlinebarcodereader.com/)
  - Esponce (http://www.esponce.com/)
  - to get the URL for any QR, simply
    - PC: right click > view properties > copy URL from the address in the dialogue window
    - Mac: Control + Click on the image > select "view image" > copy the URL from the address bar

What are the "best" QR generators?

- Kaywa QR Code Generator (http://qrcode.kaywa.com/)
- Create Your Free QR Code (http://chriscobbmarketing.com/free-qr-code-generator/)
- Qr Stuff (http://www.qrstuff.com/)
- QuikQr (http://www.quikqr.com/?p=qr-code-home-landing)
- Unitag (http://www.unitaglive.com/)
- Zxing QR Code Generator (http://zxing.appspot.com/generator/)
- URL QR Code Generator (http://blog.qr4.nl/QR-Code-Website.aspx)
- Dynamic QR Code Generator (http://blog.qr4.nl/Dynamic-QR-Code-Service.aspx)
- Qurify Text QR Code Generator (http://www.qurify.com/en/make_qr_codes_advanced/)
- Kerem Erkan QR Code and 2D Code Generator (http://keremerkan.net/qr-code-and-2d-code-generator/)
- Top 10 Free Online QR Code Generators (http://freenuts.com/top-10-free-online-qr-code-generators/)
- QR Treasure Hunt Generator! (http://www.classtools.net/QR/index.php)

The following QR code generators are also offered (either in sidebars of those above or through searches):

Video, Animated, URL, SMS, Direct Call, Email, Mecard, vCard, Event, Text, WiFi, Branded, Geographic, Navigation, Twitter Profile, Twitter Follow Me, Facebook Profile, LinkedIn Profile, Sticky-Note, Clock, …

OWN: On a separate vein, I would also like to bring your attention to Aurasma (http://www.aurasma.com/) which "animates" objects you take a picture of. In a sense, this tool works antiparallel to QR codes. Instead of creating a static image (code) that can enable or open some digital content, it can digitally animate (on screen) inanimate objects in the real world. Image the educational possibilities if your students use or create Aurasma and QR codes together.

How do I use QR codes (how-to)?

- find and install a QR reader onto your computer or device, or use a QR reader online
- resize image first, then post online
- store the code image in an image curator such as Photobucket (http://beta.photobucket.com/) and then embed rather than upload to Moodle or other application or document. That should make the information more accessible from all types of devices. It should also ensure that the image is readable.
- post a link beneath the image, or link the image directly, for students who don't have smart devices
- as always, the more options the better & it's important to remember that the point is convenience – not using the codes themselves

What happened? Can't read/won't scan/broken links

- see Topic 2

Topic 2: QR Codes: Resources About, For and Because of QR Codes

Secret Language of QR Codes ScoopIt (http://www.scoop.it/t/ceet-meet-dec-12-secret-language-of-qrs)
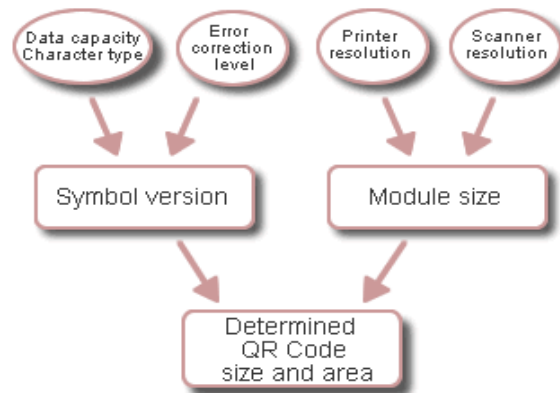
Why should I care?

- QR codes: In one page (https://it-help.bathspa.ac.uk/onepage_qr_codes.html)
- QR codes link users to digital content; they are used when actual hyperlinks are not possible

How does a QR code work?

- the function of QR codes is to encode information
  - scanning the code triggers a specific action – this provides additional interaction between the object or material the code is attached to or embedded in and the object's audience
  - the content of the code is key – design and function work together; the content affects the appearance of the code (the appearance of the code *is* the code)
  - this means the QR code must be scannable and readable
- QR codes have many necessary components which enable their function
  - they contain small squares or <u>modules</u>
    - the pattern of these squares is unique to the information or content that is encoded
    - some of these are always in specific locations
    - the large squares (eyes) in the lower-left and top corners of the code orientate and frame the code
    - the more data that is encoded, the smaller the modules, except for the eyes
  - they contain a certain <u>data capacity or density</u> or business
    - the more information you encode, the denser the data and the more complicated the QR code becomes
    - some QR code readers have a far better chance of decoding a QR code if it is simple
      - robust codes work best with less than 60 characters of information
      - shorten long web addresses using a service like bitly (http://www.bitly.com/) or tinyurl (http://www.tinyurl.com/) – an additional benefit of URL shorteners is that they track hit stats
    - data density is measured by versions (more data requires denser data and higher versions):
      - V1 = 21 x 21 = the code contains 21 rows and 21 columns of data
      - V10 = 57 x 57 = the code contains 57 rows and 57 columns of data

- they contain built-in <u>error correction</u> or redundancy
  - up to a certain percentage of the pattern on the code can be missing, badly printed, altered or covered, and most QR code readers will often still retrieve (scan and read) the message from the remainder
  - there are four Error Correction Levels (ECL):
    - ECL L (low) = up to 7% of the code can be lost (but 93% of the code is needed for it to function)
    - ECL M (medium or medium-low) = up to 15% of the code can be lost
    - ECL Q (quartile or medium-high) = up to 25% of the code can be lost
    - ECL H (high) = up to 30% of the code can be lost
- they contain white space or <u>padding</u> around the modules
  - this border needs to be at least as wide or deep as the eyes in the code
  - its function is to isolate the code from other marks or information so it can be recognized, scanned and read by a QR code reader
  - it must be clear
- the base module size, data density and error correction level of a QR code influence its size
  - the QR code must be scannable and readable
    - the bigger, the better – the suggested minimum size of the code is 1' x 1' plus the border padding
    - but watch scanning distance – if the code is too big, it can be too far or not viable to scan
  - the denser the data and higher the error correction, the busier the code and the bigger it needs to be to scan and read
    - per size, data density and error correction level compete – in this size, the denser the data, the less redundancy possible, and vice versa
  - bigger codes mean either more data, more error correction or larger modules, or some combination of these

From: QR Codes: From the Inventors (http://www.qrcode.com/en/index.html)

Where shouldn't I use QR codes?

- just because they are awesome and trendy, doesn't mean they should be everywhere (http://www.ezanga.com/news/2012/10/01/mobile-monday-worst-places-for-a-qr-code/)
- QR code placement needs to be strategic and functional
  - you can put them on almost anything: business cards, ads, billboards, posters, packages, labels, vehicles, clothing, bags, calendars, tickets, stubs, name tags, receipts, windows, walls, products and more
  - you can use them for almost anything: create a new contact, make a phone call, send an e-mail, browse the web or go to a URL, send a text message, tweet, mark the date of an event (create a calendar event), show a map, say something, show something, add interactivity to a product and much more

- when you use QR codes, you need to consider certain things:
  - treat the QR code as part of a set (object it is attached to or embedded in, itself, the information it encodes and the audience)
  - location: connect and complement the context it is in (what the object it is attached to or embedded in is and its function), the triggered action, and the audience
  - prominence: bold or subtle, focus or side, what the audience would expect and respond to
  - ease: whether the audience has the knowledge and technology to scan and read it, best to include instructions and alternatives
  - recognition: enough separation between codes or between a code and other information so codes can be read
  - consistency: branding of several codes or the same code across several objects
- don't put a QR code on a smartphone screen – putting a QR code in an MMS message, mobile app, or on a mobile website will not work; the code must be scanned, so the phone needs to take a picture of it
- don't put a QR code in place of a hyperlink – it takes longer to open the scanner app than it does to click a link
- don't put a QR code on a moving vehicle or on a highway billboard – bumper stickers or highway billboards with QR codes on them is a great way to kill people
- don't put a QR code too high or too low – the code can be a little above or below eye or elbow level, but the higher or lower the user needs to hold up their phone, the more distorted the code appears in the scanner
- don't put a QR code on any soft clothing or on skin – QR codes need to lie flat, clothes wrinkle and bodies tend to have curves, gain weight, stretch, age or change over time; also disturb other people's space and privacy
- don't put a QR code on the wall above a urinal – using a camera will make other men in the bathroom extremely uncomfortable; also what happens if the phone is dropped while scanning the code?
- don't put a QR code in the subway – subways usually don't have cell service (hmm?); crowding and dangerous placement can make scanning difficult or dangerous
- don't put a QR code on a tombstone or any other "permanent" structures – tombstones are going to be there forever, and technology changes very quickly

Can I design or brand my QR codes?

- sites to visit
  - Designing with QR codes (http://desktoppub.about.com/od/qrcodes/a/Designing-With-QR-Codes.htm)
  - What Can You Do With a QR Code? (http://desktoppub.about.com/od/qrcodes/ss/Designer-QR-Codes.htm)
  - What to Put in a QR Code? (http://desktoppub.about.com/od/qrcodes/f/What-To-Put-In-A-QR-Code.htm)
  - How To: Make Your QR Codes More Beautiful (http://mashable.com/2011/04/18/qr-code-design-tips/)
- see Topics 3 and 4
- in the world of QR codes, QR codes can be overlooked – the designer's desire is to make his or her QR code stand out while still being readable
  - brand = consistent and unique look and feel across the codes and the objects the codes are placed on
  - can have different codes target different information and/or different audiences
    - different codes can point to the same information for different target audiences (age, gender, et cetera)
    - different codes can point to different information (Topic 3: video, contact, coupon code, FAQ, et cetera) for the same target audience
    - many codes can be placed side by side to suit and target different functions and purposes

- you can control many features of the QR code
  - different code generators offer different options
  - the necessary features (Topic 2: How QR Codes Work) must be functional for the code to work
    - the pattern of modules must be scannable and readable
    - the data density and error correction level must be optimal
    - the border must be clear
    - the size of the code must optimize the symbol version – based on character type, data capacity and error correction level – and the module size – based on the performance of the printer for printing or the scanner for reading
  - features you can customize (Topic 4: Styles):
    - QR codes use contrast to scan and read the pattern of modules in them
    - colour – colour attracts at the expense of contrast – best if foreground is darker than background
    - edges – softening of edges reduces contrast – hard versus soft, filters: rounding, diffusing, shadowing
    - textures – roughening of pattern reduces or compounds contrast – distortion tools, graphics editors
    - decorative elements – brand with logo, text, graphic, photo, white space
      - never remove nor alter eyes (anchor points)
      - can change the modules: rounding their corners, turning the squares into circles
      - can incorporate the code into another shape – be aware of the required padding
    - shape – the code is square
      - never distort its shape (no circle, star, triangle, et cetera)
      - can try to change perspective (3D effect) by stretching the square into a rectangle or a trapezoid, but low tolerance
    - orientation – QR code readers need the code upright – the eyes frame and orientate the code; they should be in the lower-left and top corners of the code – some QR readers can tolerate slight alterations
  - things to consider
    - too many or too severe changes can render the code unreadable (the appearance of the code is the code)
    - need to increase error correction as more changes are made – so include fewer data and encode less information, and/or increase the size of the code
    - test the code with multiple readers and devices, since all readers and devices are not alike
    - test incrementally as changes are made, preferably test every change (iterative trial and error)
    - for URL codes,
      - point to specific targets, rather than home pages
      - design mobile versions of targeted pages
        - 10 Tips for Designing Mobile Websites (http://labs.thesedays.com/blog/2010/07/16/10-tips-for-designing-mobile-websites/)
        - Writing a Mobile-Friendly Website (http://webdesign.about.com/od/mobile/a/write-a-mobile-friendly-website.htm)
        - Make Your Site Mobile-Friendly in Two Minutes (http://www.mikeindustries.com/blog/archive/2005/07/make-your-site-mobile-friendly)
        - How to Design Web Pages for Mobile Devices (http://www.ehow.com/how_5340447_design-pages-mobile-devices.html)
        - How to Make a Web Page Mobile (http://www.ehow.com/how_5092987_make-mobile.html)

Are there examples of QR codes I can view?
- 50 – Count 'Em, 50! – Creative Uses of QR Codes (http://www.flyteblog.com/flyte/2011/03/50-count-em-50-creative-uses-of-qr-codes.html)
- 101 Uses for Quick Response (QR) Codes (http://blog.greattv.com/2010/06/101-uses-for-quick-response-qr-codes-creating-audience-engagement-with-the-next-killer-us-app/)
- QR Anywhere (http://qranywhere.blogspot.ca/)

Topic 3: QR Codes: Varieties, Types and When to Use Them
QR codes are used for different purposes, in different ways. Here are a few examples of common uses.

See Topic 1: QR Code Generators and Topic 2: How QR Codes Work and How To Design Them

Text to QR to Speech
- QR Voice (http://qrvoice.net/)
- create a Voki (http://www.voki.com/) and then link to it using a QR code. With Voki you can select not only the look of your avatar, but you also have numerous voices to choose from and you can even phone in your own voice message
- use Vocaroo (http://vocaroo.com/) to record, then save the URL and enter it into Unitag (http://www.unitaglive.com/qrcode) and create a simple website-push QR
- you can now store any kind of file on Google Docs (http://googledocs.blogspot.ca/2010/01/upload-and-store-your-files-in-cloud.html)
- create a video with one slide of the book title and record the student's voice. These store well in Photobucket (http://beta.photobucket.com/) and elsewhere
- my first QR code: http://my.qrvoice.net/Z6XKYV
- myfirstQR.png, speechQR1.png, speechQR2.png

Encoded Text
- TomSwiftysaidQR.png, qr_Tom_Swifty.pdf   note: in Quickmark, a text QR renders in history, not view

Mark Your Calendar

- leapyearQR.png

Website Push

- mootQR.png

Send E-mail

- emailQR.png

Multimedia

- image: MonaLisaQR.png, qr_gallery.pdf
- video: videoQR.png, teachersQR.png, scienceQR.png
- audio: bellsQR.png

Topic 4: QR Codes: Styles, and Why and Where to Use Them

QR Codes come in all kinds of styles and configurations. Although we tend to think of the original Black And White, there are many different varieties that lend themselves to all kinds of clever uses... Now let's look at all the different styles, and why or where you would use them.

See Topic 1: QR Code Generators and Topic 2: How QR Codes Work and How To Design Them

The need for QR codes to be readable influences how one can design, decorate and customize them (Topic 2). Contrast is the most important feature of the QR code. If the colours are not strong enough, the borders are not clean enough or an image overlaps too much of the code, the code won't read.
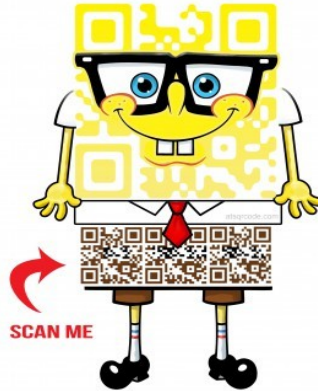
Logo in QR Code

- bbclogoQR.png

Image in QR Code

- tomiahonenQR.png (this particular code tries to access Contacts)
- sponge_bobQR.png, creativeQR.png (these ones did not scan, no code was recognized)

Coloring of QR Code

- urbancodeQR.png

Topic 5: Brainstorming: Classroom Uses of QR Codes
One of the things to think about with QR codes especially is when, exactly, would you be using them?

- QR codes on a web page are basically useless as they are much harder to access than a simple link – unless you want to make it harder than a simple click ...
- http://qrcodematrix.com/
- Student art work: Students create pieces inspired by an artist of the past. The QR code displayed next to it links to the student's oral or written critique of the original.
- Archival photographs of WW1: code next to it links to student poems of remembrance.
- Biology: Students locate and study native plants in the woods next to the school. They create a website with plant id, First Nations uses, other info. Signs with some information are posted next to the plants in the woods, and with QR codes attached linking to additional student-researched information.
- Student oral readings of picture books: Students practice and record their readings of books, QR codes on the cover link to the recordings.
- Book Talks: record book talks and then linking to a QR code on the books in the media centre
- Mixed Media: put a QR code on a physical artifact as way to provide a link to information from or about it
- "not giving all the info at once" like flashcards ...
- link to multimedia, to apps, to safety references, to scavenger hunt clues and puzzles, to procedural exercises (see who is following directions), to exchange info in science & math team games/activities
- PTS Conferences: in parent-student-teacher conferences, students could have produced a sheet of qr codes they have generated for various digital creations (blog posts, Pixton cartoons, podcasts, uploaded images etc) and as

the conversation goes ahead, students can choose which evidence of learning they would would like to share. Probably best done on an iPad sized device so the work is most easily seen

- 50 QR code resources for the classroom (http://www.zdnet.com/blog/igeneration/50-qr-code-resources-for-the-classroom/16093)
- QR Code Classroom Implementation Guide (http://coolcatteacher.blogspot.ca/2011/05/qr-code-classroom-implementation-guide.html)
- The Darling Librarian's creative commons poster: QR Codes at a Glance (http://www.flickr.com/photos/info_grrl/5281436894/in/set-72157625298744518/)
- Environmental Stewardship/Awareness: QR Codes from Coast to Coast (http://www.thebigwild.org/photos-qr-code-posters)
- turn a paper based book into an interactive book with QR Codes (http://www.technologybitsbytesnibbles.info/archives/5066)
- Big Buddy to Little Buddy gift: older student finds a non-fiction (or even fiction) picture book of interest to the younger child, thinks about how the information can be amplified with video, audio, or other text – or even a personal message, then generated qr codes are paper clipped to pages inside the book. Partners then share the books with their buddies in a side-by-side read aloud. Librarians, do you approve of paperclips in books? is the there a better way? (maybe those post-it glue sticks....)
- stimulate oral storytelling using QR codes (http://www.youtube.com/watch?v=a9SwTiNx_Ps&feature=g-upl&context=G20585abAUAAAAAAAIAA)
- QR-Coded Audio Periodic Table of the Elements: A Mobile-Learning Tool (http://pubs.acs.org/doi/abs/10.1021/ed200541e)
- The QR Periodic Table of Videos (http://www.flickr.com/photos/periodicvideos/5915143448/sizes/l/in/photostream/)
- Stats QR hunt (S1 QR Code Revision Trail – Statistics) (http://www.tes.co.uk/ResourceDetail.aspx?storyCode=6225077)
- kids do QR book reviews
- Scavenger Hunt: basically, use code to provide resources that help if the puzzle/clue was not apparent
- station set up with a doc camera to watch book trailers
- Kindle: books end in a QR code to the advertisement/review of another book
- print off QRs and post them, either secretly around the school (a bit of guerilla teaching) or as an organized "gallery walk" where kids would circulate and scan and compare their findings
- on occasion, post a QR to a Moodle page, but don't anticipate student would be doing an online activity AND have a mobile device beside them to scan codes
- use the QR on a hand out or a poster and expect it to be used on a mobile device
- still use QRs in an online setting, just make sure they are the most stable/readable
- incorporate digital technology in a traditional setting, as a way to move the adults in the building, as much as the kids, away from the model of fearing and trying to ban mobile technology
- OWN: 10minutes by Malyn Mawby (http://stefras.wordpress.com/2012/02/29/10minutes-by-malyn-mawby/)
- OWN: for any subject, students can work on products on paper or other media and reference extra material through QR codes
- OWN: create a scrapbook, journal, project report, etc. that includes links to relevant but extra information. This extends what the student gets out of the journal, or creates anticipation for the topic. Either way, both the

information and the topic are enriched by the multi-resourced report.

- story in a scavenger hunt (http://moodlemeets.learnnowbc.ca/pluginfile.php/4918/mod_resource/content/1/QRScav.pdf)
- a library catalogue might provide QR codes for library records
- QR code at a physical location such as a display board perhaps can link to a related web site or map
- one of the more obvious uses of QR is open days. Place a QR code on a static display, use the QR code for those with mobile devices to get additional details
- photo (shoulder shot) of skier about to charge the slope, the QR code links to an awesome video of the skier running the slope
- career and other "this is what we do with ___" posters. So much better than a static display, particularly if the content of the page, video or other presentation changes occasionally
- recording voices as students read storybooks aloud, and then read QR codes so students can hear recordings
- create a QR Code linked to a glossary or an image of characters or complete message for codes and other languages and symbols
- OWN: Student Inquiry: direct students in inquiry-based learning and exploration. In particular,
  - QR subject/topic/task hunts (each QR code engages students in new learning tasks)
  - field trip scavenger hunts using orienteering and QR codes with puzzles/questions whose answers give next instructions (ie. clues placed in lesson-relevant places)
  - QR alternate-adventure labs with a mix of online and onsite questions, puzzles and clues (an extension of the scavenger hunts, but with several QR directs per station so different students follow different routes, based how they respond to tasks or questions, and each route is designed to engage students in specific knowledge, skills and ways of thinking to scaffold learning)
- Tom Swifties and Friends
  - post jokes or questions or puzzles around the room, with the answers in a text-QR
  - qr_Tom_Swifty.pdf
- Art Gallery
  - what are other "Galleries" you could create in this fashion?
  - qr_gallery.pdf
- New Group Scramble
  - a fun way to get new class or group members to get to know one another
  - put up clues around the room and have classmates write down guesses, and/or claim their own clues
- Create a QR Bundle with Museum Box
  - Dynamic QR Code Generator (http://blog.qr4.nl/Dynamic-QR-Code-Service.aspx)
  - make dynamic codes on cubes that presumably spin
  - Museum Box (http://museumbox.e2bn.org/)
  - do group projects or collect resources in one space
  - Origami Fortune Tellers (http://www.origami-fun.com/origami-fortune-teller.html) with QR codes
  - folded decision makers and surprise destinations or information

Topic 6: Other Secret Languages

Hobo Code could be used to tell an "urban" tale. Presenting encoded languge of the 20th century could include Morse code, Hobo code, even HTML. From the ancients to the script kiddies, make a suggestion for an Engaging Encoding activity.

Cryptography and discrete mathematics are great ways to engage kids, get them creatively reasoning and thinking, and layer tasks. I like The Puzzling Adventures of Dr. Ecco as a hook-them puzzle filler.

But cryptography can be designed to emulate (provide clues, in the process of decoding, or beyond the written) the concept or skill of any school subject or topic, particularly if the hidden message is actually a task.

The message can even be split into clues scattered in locations key or relevant to undertaking the task or learning the concept, and in this way emulate a scavenger hunt, decoding and task activity. Add a bit of "detective" work or whatever other metaphor best fits the subject, concept or skill, and you could have a sure winner.

Consider though whether the QR codes add to the activity. That is, do they bring something into the activity that enriches rather than just decorates it? Secure a purpose for the QR codes that would be hard to deliver otherwise and then design an activity that elegantly incorporates the codes as an integral component instead of an afterthought.

Lisa asked us to create a puzzle in code, so I decided to offer this one. The code hides a puzzle whose simplicity is deceptive. Good luck.

Code of firsts: letters, alphabet, names, 28 participants (drop the last two listed). Lbcb's 1 llvl dpcll pdlbcbsl cgm. Dmdmbcs 1-9 vtt msbg: 3 gpcpl dmdmbc, etms gc dpdms 3 gpcpl dmdmbc, cpbbs vdgllbc 3 gpcpl dmdmbc. Mml dgcb: lgj dvdc gpslpdhl vdsjbcs, vdg lgj vcb llbsb vdsjbcs cbtvlbg?

If you really get stuck with the code, I have the solution for the asking (urbancodeQR.png, alldigitsQR.png).

http://www.ualberta.ca/~urban/Learning/qr_urban_introcode.png

By the way, "You might (Some) try to (codes) figure out (are) what these (based) two sentences (in) are saying (word) about codes (substitution)".