‘Some things you mite like to know…’ Textiles as a medium for raising awareness about scabies; an interdisciplinary approach
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Abstract
Textiles are tactile, have an enduring interest to the public and sit next to the skin, so are a perfect medium with which to explore a skin condition. Following an earlier multidisciplinary collaboration between a textiles practitioner and Brighton and Sussex Medical School (BSMS) to raise awareness of scabies, a new interdisciplinary method was developed. It had been identified firstly that the campaign to de-stigmatise head lice paralleled that which we wished to achieve with scabies, and secondly that working with children would encourage acceptance before prejudice could become embedded. Clinically correct information delivered in an accessible manner and integrated into the creative workshops was critical to maintaining the validity of the textile artefacts, but this had to be carefully negotiated so that it did not compromise creativity. On a practical level, schools were keen to participate as sewing and textile-based activities are resource-heavy and time-intensive, and the children truly engaged with the creative opportunities.

Aims: To use creative, textile-based methods to raise awareness of scabies.

Objectives: To work collaboratively with BSMS to run informative/making workshops in local schools which would facilitate children to create textile artefacts and a textile-based game, and develop stories and animations, all about scabies.

Methods: To partner with local schools and organise primary level workshops in which children create textile artefacts. To use the artefacts as a focus in object-based story-telling workshops and then work with secondary age students to create animations founded on these stories.

Findings: Most of the children had not heard of scabies before the workshops, but after the workshops the majority said they enjoyed learning about scabies and participating in the activities that underpinned this. The most popular activity was reported as drawing, closely followed by making textile artefacts.

Introduction
This project developed from an earlier collaboration between Vikki Haffenden, a specialist in knitted textiles from the University of Brighton, School of Art and a team from Brighton and Sussex Medical School (BSMS) who were researching the prevalence of scabies in care homes in the South East of England. During this collaboration Haffenden had designed and produced interactive textiles (figure...
1) to encourage empathy and understanding of scabies. The project discussed here was designed to introduce the subject of scabies to school children and raise their awareness of this condition, with particular reference to scabies amongst older people living in care homes.

Figure 1: Haffenden's experiential scabies garment.

One of the primary aims was to reduce the stigma of this common condition by encouraging children to challenge misinformed beliefs that may be held by their families. Information gathered and developed by the BSMS research project would be shared with the children in an accessible and appropriate manner, and art and craft activities would be used to measure the impact of sharing this knowledge with primary school age children. Within this wider concept, textiles were chosen as the ideal medium with which to evaluate how much information children retained. At the same time, from an arts perspective this would establish a fresh methodology through the creative use of textiles in combination with game-playing, object-based story-telling and animation.

After planning the outline of the project, we approached a number of local primary schools and Coldean Primary School, Brighton, United Kingdom (UK) was extremely keen to be involved. After early conversations it was mutually agreed that we would work with two Year 5 classes of 9-10 year-old pupils; a maximum of fifty-seven children. Due to the school’s timetable we were able to have only 90 minutes after lunch for our workshops, which was not ideal, but workable. At a preliminary meeting, we sought the advice of the experienced teachers to ensure that the proposed workshop activities would be manageable and appropriate to the children’s developmental abilities, because we were keen to work with manageable expectations from the start.

The aim of the project, and the purpose of the workshops, was to inform children about scabies with information from earlier research and evaluate the impact of this using textiles as a creative medium. There were four main outcomes proposed, and these were woven into the timeline of the workshops:
1. For the children to draw a scabies mite based on their new knowledge, and for these to be translated into digitally printed bean-bags with which they would play a textile-based, interactive game.
2. For the children to creatively decorate and customise their own textile scabies mite, whilst keeping them anatomically correct.
3. For the children to create stories based on their scabies mites.
4. The creation of an animated film. To achieve this, we planned to work with a group of older media students who would create storyboards from these stories and take the photographs with which an animation could be made. We approached the Art department at Seahaven Academy (New Haven, UK) and a group of Year 10 photography club students joined the project and attended the storytelling workshop to work with the primary school children.

Introducing the older students to work alongside the younger ones in the story-telling workshop prepared them to take the project onwards. These older students were to work with an animator, that would be used by BSMS in future scabies events, and which would be made available as an online resource via the website.

**Methodology**

Working creatively and reflexively was a core component of the methodology from the outset. This had to allow for flexibility and responsiveness, so outputs and outcomes were not rigidly pre-defined. Working with primary school children is not clear-cut, the differing needs and abilities of this age group meant that we had to continually review and re-evaluate after each workshop and revise future activities based on the most recent outcomes. As this was not a research project, but one that was measuring the impact of earlier research findings, the project did not have to have ethical approval. The schools organised parental permissions for photographs and video of the children for use by the project on the website and in future presentations. Those whose parents preferred them not to be included were either not photographed or digitally obscured in group shots. Photos and video were checked by the teachers afterwards to ensure nothing was overlooked.

Whilst working on the animation with the older children from Seahaven Academy, the main problem was their automatic use of online content. Their first instinct was to use music and images from the internet, and we had to explain the issues around copyright when using online sources.

**Methods**

As we had considerable shared expertise organising and teaching community sewing, textile and craft workshops, combined with our experience teaching in higher education (HE), we decided from the start that the children would work in some way with textiles. Textiles are so embedded in our lives, they are ubiquitous, surrounding us in our homes, protecting our bodies and aesthetically enhancing our everyday activities and surrounding, therefore engaging the children in making something from textiles was considered likely to strengthen existing, albeit unrecognised connections. Choosing the scabies mite as the central theme created a focus for the making and for individual interpretation. One thing we did not anticipate was quite how closely the children would identify with their mites or anthropomorphise them even before they started to weave them into their stories.

Although we found very little literature on the subject, our methods built on those developed during other studies by educators using textiles to encourage learning in unrelated fields. In 1993, William Nieberding, worked with student teachers as described in ‘Quilting our County’, and Linda Bennett
(2008) worked with American Elementary pupils as part of her Social Studies research. Nieberding (1993: 7) pre-defined textiles as a sub-focus; and one of his questions was, ‘...what can we learn about quilting on the way?’ It should be noted that Nieberding (1993) was more interested in how the students used online methods to research the local geography and what they discovered about their surrounding area, rather than how they expressed these findings using textiles. In her study, Bennett (2008) did focus on the use of textiles and the craft-making aspects of quilting, but for the social studies aspect rather than the aesthetic. However, Bennett (2008: 92) stated that one of her aims was for ‘... the student’s enthusiasm to inspire other elementary school teachers to quilt with students’. Both these projects took advantage of the American tradition of quilt-making as a basis for their textile work, something that does not exist to the same extent in the UK. They also had the luxury of being situated in the school/college for longer sessions with the participants, and in Nieberding’s (1993) case the age and capability of the students clearly meant that they could produce more complex and accomplished pieces of work. In both these studies, and in the one being discussed here, the students developed core curriculum knowledge, literacy, numeracy, problem solving and collaborative skills alongside creative and craft skills. We planned to add online content to share our methods with a wider community.

**Equipment and Consumables**

Equipment and supplies were of critical importance to the project, and as such were prioritised in the budget. However, there were a few issues; for example, in Workshop One, for the activity of drawing scabies mites the school had offered to provide art materials. Unfortunately, the coloured pencils provided were not adequate for the planned outcome - producing thin line-art and pale colours. This impacted on our proposal to digitally print on fabric; the lines were too fine, and the colours lacked vitality. On reflection it would have been valuable to have provided thick felt pens and coloured paper, something that was introduced later in Workshop Two. Reflecting a desire to work sustainably, but also to reduce costs, reclaimed and scrap materials were chosen for the scabies mites where possible. Seahaven Academy provided the digital camera equipment for filming the animations, and the project and animator provided art materials for the storyboarding and props.

**The Workshops**

**Workshop One**

At the start of Workshop One, the children were gathered in one large group in the school hall. The team introduced themselves and the project and explained what they would be doing with the children during the workshops over the next few weeks. This was followed by an informal visual presentation about scabies tailored to catch their attention, including magnified images of mites, and symptoms of infestation on the skin of elderly people.

After watching the presentation (figure 2) and an active question and answer session, the children were given a brief to draw scabies mites based on what they had just learned. They then moved to tables in the centre of the hall on which pencils and paper had already been laid out. Haffenden’s interactive textile garment was taken around for them to try on so that they could experience some of the physical discomfort of having scabies. All the children really enjoyed drawing and some did more than one drawing.
Between Workshops One and Two the team processed the drawings into files suitable for digital printing. One of the issues, as already discussed, was that the lines and colours produced by coloured pencils were not sufficiently bold to translate directly into digital print on fabric. Therefore, a considerable amount of time had to be spent working out a method in Adobe Photoshop to strengthen the lines, enhance contrast and colour saturation, and then batch process the 65 images as efficiently as possible. As the images were to be printed onto undyed, ecru cotton, part of the enhancement process was to create colourful backgrounds using plain colours or geometric and repeating patterns drawn from the children’s work. Figure 3 shows an example of an original drawing, and the completed beanbag.

Figure 3: (left) Scabies drawing, (right) the beanbag design.
Workshop Two
In Workshop Two (figure 4), the children made their own three-dimensional (3D) textile scabies mites (figure 5). This involved sewing and applying beads, buttons, sequins, 'goggle-eyes', pipe cleaners and other decorative items to the textile surface.

![Image of children working on mite-making](image)

*Figure 4: Workshop 2, mite-making.*

![Image of 3D textile mites](image)

*Figure 5: Some of the 3D textile mites.*

The children were divided into their respective classes and classrooms, and the rooms were organised according to the activity planned. In the mite-making room, tables were arranged so four to six children could sit around them. Each table had six pre-threaded needles inserted into a piece of fabric, a pair...
of not too sharp scissors, high-tack, fast-setting fabric glue in small, fine-nozzled, squeezy bottles, pre-cut lengths of yarn and pipe cleaners (for legs and antennae). Short, thick needles specially designed for primary children were used, but other types were also available from helpers for sewing on beads and sequins with small holes. To minimise risk of spillage, loose items such as small bells, sequins, goggle-eyes etc. were kept centrally in a compartmentalised box for the children to take as they needed.

There were five volunteer helpers at this workshop who supported room set up, pre-threaded needles, assisted the children with sewing and sticking, providing general support and advice. A subsidiary part of the helpers role was to ensure that the mites remained anatomically accurate with the aesthetic fabric, colour and embellishment choices made by the children. We could not have run this workshop without the helpers.

Concurrent with the mite-making, and to alleviate pressure on the volunteers, the second class created information leaflets about scabies. Having learned from Workshop One, coloured paper and plenty of thick and thin coloured felt pens were provided for this activity. Before starting the information leaflets, the children were given a short re-cap of the information shown in the Workshop One presentation. Introducing this additional activity proved popular with the children and the teachers, who were pleased that it provided additional opportunity for the children to develop their literacy, memory and artistic skills.

This second class was sub-divided, so that approximately six at a time could rotate out of the leaflet-making to sew two-dimensional (2D) mite shapes onto the games-mat. The mat and scabies mite shapes had been pre-cut, and needles and sewing yarn supplied as for the 3D mites session in the other room. Two helpers and a large floor space was needed for the games-mat sewing, and it was really heartening to see the way in which the children enjoyed sewing the mites down. Simple instruction sheets for working running stitch and blanket stitch were provided. In retrospect it might have been helpful to mark the mites with sewing lines, or punch holes around the edges.

After approximately 35 minutes, (roughly half-way through the session) the groups swapped rooms and activity. Once again, we had been over-optimistic and not all the mites were completed by the end of the session. This was where our methodology enabled a flexible response, and it was decided that the mite-making ‘mop-up’ should be carried over to Workshop Three, (which had originally been planned to be bean-bag and games mat-making), and that the team would sew-up the beanbags in advance. This would mean that the children who had not done so would have time to complete their 3D textile mites in the next session. Meanwhile, the teachers kept the children informed of the progress of their beanbags by showing the project blog to the class.

**Scabies games and mat-making**

When designing the game, the aims were that it should reinforce the information about scabies, involve the beanbags, and be simple but at the same time enable as many children as possible to play at once, ideally in teams to encourage collaboration. Reviewing several educational beanbag games led to the development of ‘Scabies Scramble’. Most beanbag games involve throwing, and it was considered that a mat would provide a focus for this, thereby reducing the opportunity for over enthusiastic lobbing. A mat is also portable, lightweight and easily stored.
The mat design was based on the scabies mite’s life-cycle, with the five stages represented by size and colour. Each size was defined by colour, and a value attached to them by size so that the larger mites, (which were easier to hit with a beanbag) had a lower score than smaller ones, working down until the smallest eggs were the highest scoring. Two teams of up to ten children would try for the highest score by throwing their bean bags from opposite ends onto empty mites. Whilst waiting their turn, they had to balance their beanbag on their head. If they dropped the beanbag, they missed their turn, and if their beanbag didn’t fall fully on a mite it did not score. Each score was called out by the thrower and a helper kept score for the teams. When the mites were full, the beanbags were retrieved, and the game continued until each child had thrown their beanbag at least once but could continue as required.

Alongside the mat-based game, another version, ‘Scabies Freeze’ was developed so that the beanbags could be used without a mat. This was a combination of various traditional party games, but in ‘Scabies Freeze’ the children could only move within the pre-defined ‘care home’ space. They balanced their beanbags on their heads without touching it, and when the leader announced (or demonstrated) a movement, e.g. ‘stand on one leg’, ‘take a step to your right’, they had to do this without dropping their beanbag. If they dropped their beanbag they were out of the game, but there was the option for another player to pick it up and return it so that they could re-join the game. Every so often the leader could tell them walk around – this is where they had to be aware of the ‘care home’ perimeter.

In preparation for mat-making, four different sized mite shapes; larvae, nymph, adult, pregnant adult were cut out in different coloured felt; felt does not fray, and so would be easy to sew down. The mat itself was also felt, so required no sewing. On the day the children chose their own mite and were encouraged to spread the mites across the mat at random. Once the mat was complete, values were painted onto the mites according to size along with the ‘Scabies Scramble’ logo.

Workshop 3
This workshop was originally intended to concentrate only on object-based story-telling using the mites, but as they had to be finished to be used for this purpose some children would be completing their 3D mites during the first half of the workshop. A professional script-writer, who had been a helper in Workshop Two and so was familiar with the theme of the project, was employed to facilitate the storytelling. In consultation with the team she proposed three foundation scenarios for the stories:

- a young mite leaving his family in search of adventure;
- a family of mites living in a care home and avoiding detection;
- a fussy mite who likes to be on clean skin.

Seahaven Academy students came by coach from Newhaven to join in the workshop because it was felt that they needed to be involved at this stage to be part of creating the stories with which they would be working. Three groups were formed, and Julie (the scriptwriter) talked them through the themes and how they were going to work in groups concentrating on a theme each. The older students were split between the groups, some sat with the younger children and helped them write up their ideas, whilst others took photos. Using their own creations to inspire their stories, and with the guidance of Julie and that of the older students, the children used flipcharts and markers to lay down the broad outline of three stories.
During the last 15 minutes of the workshop the children played ‘Scabies Scramble’ (figure 6). Finally, there was a group meeting to sum up the project and explain how it would progress with the Seahaven Academy students working on the animations.

The rationale for story-telling
Personal experience tells us that we are more likely to remember something when it is embodied in an anecdote than when it is told as a bald fact. The team members were not formally trained to work with primary age children, and therefore relied on guidance from the experienced class teachers. Both Haffenden and Lanza had experience with young children and they enjoy creating stories and became rapidly absorbed in this process. The value of learning through story-telling, and its use as a learning tool has been further discussed by Egan (1988: 13), who, when writing about how school children retain information, observed, ‘If one can encode the lore to be remembered into a story, it has been found universally, then one can more securely fix it into other minds’. Therefore, stories seemed a perfect vehicle by which the children could weave their new knowledge about scabies into tales that drew on their own experience, interests and aspirations, and in the process create tales that would engage others.
The Blog
The blog (figure 7), was established early in the project, and pages were actively updated throughout the project. It showed the ‘behind the scenes’ activities of the team and aimed to report on workshops within 24 hours. The Textiles and Scabies blog was hosted on Edublogs via Wordpress, and the team all had access so that it could be a communal platform. The teachers at Coldean Primary School showed the blog to the participating classes so that the children could follow the project while not physically involved.

![Figure 7: Homepage of the Textiles and Scabies blog.](image)

The aim of the blog was to provide progress information for the schools and to eventually hold the resources created for the workshops so that others would have access to our methods in the future. Once the final animations were completed, they were also uploaded to the blog for others to use.

The Animations
As already discussed, it had always been the intention to employ a professional animator to facilitate the animation workshops. During the animation workshops at Seahaven Academy storyboards, backgrounds and props were created and photographs and video taken featuring the scabies mites and based on the three stories outlined in Workshop Three. From these, and with further professional help, the final animations were created.

Findings and Conclusions
Simple questionnaires were given to the children before and after Workshop One analysis of the data collection resulted in the following findings. Drawing was the most popular activity, with 100% responding positively, and trying on the scabies garment proved to be the least popular with 60% approval. When asked if they knew what scabies was before Workshop One, 80% did not (figure 8), whilst almost 80% had not heard of scabies at all prior to this time (figure 9).
Figure 8: Pie chart showing children who had heard of scabies before the project.

Figure 9: Pie chart showing children who had known anything about scabies before the project.
The children remembered a remarkable amount of information, such as: scabies are part of the spider family, anyone can get scabies, and it is the female that burrows into the skin causing the itching by laying eggs (figure 10).

![Bar chart showing concepts children reported learning from the project.](image)

From the creative, textiles aspect the workshops had proved successfully that working with textiles was a popular activity for the children. This was concluded from the responses that 80% enjoyed sewing the 3D mite, 70% enjoyed making the mat, and 90% enjoyed making the beanbag. It was observed that whilst the children created their 3D mites, they needed very little encouragement to keep their 3D mites anatomically accurate; for example, they were keen to make sure that they had the correct number of legs and wanted to replicate the spikey body surface they had seen in the presentation.

From this we concluded that textiles were a valuable medium for engaging children with learning about a new subject and reinforcing this new knowledge. A significant 83% of the children said that they liked making up stories about their scabies mites, and 87% overall found learning about scabies and participating in the project enjoyable.

Although targeted at scabies, the methods developed for this project and materials used in the workshops could easily be adapted for use raising awareness of other conditions or circumstances. Scabies is classed as a Neglected Tropical Disease by the World Health Organisation, and it is further proposed that those methods that used recycled materials and simple tools (drawing, mite making, story-telling) could be adapted to support awareness-raising initiatives where there are only limited resources.

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References


