

27th September 2014

Report *Workshop Animals In War*

Lansdowne School, London, Lambeth, School for Special Educational Needs (SEN)

This report summarises the result of a co-operative project about innovating teaching and learning at Lansdowne School (London), and the European initiative 'We learn it' of the Institute of Education (IoE), University of London¹. This report is organised into three parts:

1. Overview and summary of the workshop '*Animals in War*'.

2. Educational framework with the overall objectives of the workshop

This framework refers explicitly to Lev Vygotsky's basic ideas of learning as personal development which has to be supported by teaching in the learners' developmental perspective. Keywords are *Zone of Proximal Development (ZPD)* and *Scaffolding*. In the learners' developmental perspective, the workshop tried to open learning from everyday life, as well as mobile devices and Internet - especially in their function to transgress institutional boundaries and facilitate the option to generate contexts.

3. Chronology of the workshop and planned patterns of appropriation

The workshop will be described in two ways. On one hand, the structuration which the teacher embedded into the workshop: personal theory / doing - applying / exploring / reflection. This structuration puts in the foreground patterns of appropriation. These patterns transgress the scholastic view on appropriation, as a result of instruction in a teacher guided learning, whilst trying to consider learning in categories of students' activities and cognition. On the other hand, due to the time structure of the workshop it is relevant to describe chronologically the progress of the workshop. The chronological description of the workshop in weeks and session is combined with the appropriation pattern.

These structures mean that episodes are listed and described in parts 1 and 2 of the report.

1. Overview over the project

1.1 Proceeding

The project '*Animals in War*' took place at the end of the summer term, and ran over 5 weeks with 12 sessions. Usually, a session lasted 100 minutes and culminated in a one-day excursion. Originally, just 4 sessions in 4 weeks were reserved for the project. Seven students participated in the workshops from one class with one teacher, 2 teaching assistants, and occasionally with the IoE-facilitator as an additional teaching assistant and observer. The workshop began with brainstorming about students' ideas on what war is

about (1st week, 2 sessions, **associative preparation of the issue**), focused than (2nd week, 1 session) on **analytical work about animals in war**. In the 2nd and 3rd week in 4 session students wrote a story of a self-selected animal in war e.g. pigeon, hyena, horse (**1st narration: My favourite animal**). Students checked internet and other media sources (TV documentary) which led to a hand written story with images in the students' exercise book. Analytical work about animals in war, the selection of the favourite animal and story writing was accompanied by the *circle "Animals in War"*, which finally consisted of "Favourite", "Working", "Vulnerable", "Role play" (me as animal). In the 3rd week on a one day excursion with the school's mini-bus to central London students and teachers visited *working horses* at the *Changing of the Guard* and *The Household Cavalry Museum*, in Whitehall. They then went to the memorial for animals in war in Hyde Park (**Educational visit**). In a 2nd session, in the 3rd week students' wrote a report, **2. narration**). Afterwards students considered what they had done and achieved already (4th week, 2 sessions: **reflection and planning with peer assessment and student-led collaborative learning**) which preceded the public presentation of the project results to the school public (5th week, 2 sessions: **preparing a summary for public presentation in school, 3rd narration**).

1.2 Participants

Class 8JH, Teacher: Jack Peters, Teaching assistants: Feze, Kath, at times other teaching assistants, facilitator from the Institute of Education: Ben Bachmair.

Students of 8JH, age 12 to 13 years: John, Jermaine, Valerie, Darren, Carly, Peter, Annie, Toby, and Terry. Age is Key Stage 3, they learn on Key Stage1/2.



Fig 1: Students and team of teachers on the excursion to the Horse Guard in Whitehall. This photo was the final slide of the students' presentation to the school assemble (5th week, session 12). The following text was printed on this slide: "Thanking you for watching 8jh's presentation".

At the beginning of the project, and for a short time students of class 8DL considered what war is about.

1.3 Curriculum and educational framework of the workshop *animals in war*

This project combines Biology with the issue 'war'. The curricular frame for the workshop was Science with the focus on affordances of animals to war. Lansdowne School is a school for special needs which offers the opportunity to define learning outcomes in relation to the developmental situation of student. Therefore, the *SEN's PIVOTS* lead to the following sub-levels for students to achieve:

- Pupil can identify features of animals appropriate to their environments;

- Pupil can explain simple changes in living things e.g. can suggest reasons why an animal is dying;
- Pupil can explain changes in living things which result from environmental changes e.g. explain why cats moult in the summer.

The war memorial for animals in Hyde Park, London (http://en.wikipedia.org/wiki/Animals_in_war%2C_london) should help to concretise the relation of animals and war. The objectives to deal with a war memorial are about

- framing a war memorial by everyday life;
- becoming aware of the history and the social frame of a specific war memorial;
- integrating this war memorial into students' reflection and activities.

In the perspective of war memorials and everyday life it was also helpful to explore and reflect an actual site of animals in a military context. Therefore, the visit to Animals in War Memorial was combined with the tourist attraction of Changing of the Guard in White Hall, and a visit to the connected Household Cavalry Museum

Beside education for special needs the teacher is specialised in Business and Economics education. The teacher refers explicitly to Lev Vygotsky's educational concept that learning has not only to consider the development of a student as condition for learning but that learning is an essential part of personal development. Learning and personal development are an amalgamated unity which has to be reflected as a prerequisite for teaching. One outflow of this integral learning concept is to consider students and teacher both as learners (keyword is obuchenie). Vygotsky's concept of a "zone of proximal development" gives the input to look for a student's actual perspective for going ahead by learning in a school situation. The teacher's strategy of reacting to a learner's actual developmental perspective (in the school's organisation of learning through instruction and teaching) is to open teacher guided, commented and assessed tuition to communicative, conversational, cooperative episodes of situated learning. In such communicative, conversational, cooperative episodes of situated learning the students act in groups on their actual personal capacity with their means of activities, feelings, cognition, and in the perspective of their personally envisaged targets.

1.4 Group work with media devices

Students and teaching team were familiar with group work. Groups of 3 students worked at one table, where 1 tablet was available. Students were also familiar with discussions in a common circle. They routinely used tablets (iPad) with one tablet for each of the student groups. Tablets were stored by teaching team and handed out for application by students. As personally owned smartphones were not accepted in the school the teacher provided his personal smartphone for use in class. One PC plus printer with restricted Internet access was available and connected with the electronic white board. Mobile devices, the 3 tablets of the class owned by the school, were in applied during all 5 weeks for:

- all appropriation pattern: personal theory / doing - applying / exploration / reflection;
- all tasks: analytical work / 3 narrations (story: my favourite animals; report of excursion, public presentation of workshop) / educational visit (excursion), reflection and planning with peer assessment and student-led collaborative learning / preparing the public presentation of workshop.

Students applied tablets for:

- taking photos of own work;
- taking photo during excursion for investigating sites;
- interviewing each other and taking photos of each other;
- accessing Internet for searching and downloading information and images;
- playing digital games for entertaining;
- watching a documentary video;
- listening to music videos for setting up a protective "work space";
- preparing PowerPoint slides.

Occasionally, the teacher's personally owned smartphone was used, especially to show to the students the teacher's learning activities, and giving students supervised individual access to the Internet.

2. Educational framework with the overall objectives of the workshop

The project '*Animals in War*' evolved from a discussion between the teacher and the IoE-facilitator during a paper presentation on mobile learning. The discussion indicated that Lev Vygotsky's concept of learning as development should deliver the frame for a cooperative project and workshop, at the end of Lansdowne School's summer term Vygotsky (1978 / 1930)². The curriculum requires a relation to Science. The discussion about the focus of the workshop led to animals in war. The core of the project should be an excursion of students to a war memorial. Finally, the workshop ran with 12 session over 5 weeks:

- brainstorming on what is war about in 1st and 2nd week,
- narration and analytical work in 2nd week with 4 sessions,
- excursion and its reflection to Horseguard's Parade, its Cavalry Museum, and Animal-in-War Memorial absorbed essentially more time (3rd. and 4th week),
- preparing a summary and its public presentation (5th week).

Teacher planned and structured the course of the workshop in patterns of students' cognition and activities:

- Personal theory,
- Doing/applying,
- Exploring,
- Reflection.

This structuration is oriented to the students' development, and their way of appropriating the issue of animals in war. These patterns transgress the scholastic view on appropriation as result of instruction in a teacher guided learning instead trying to consider learning in categories of students' activities and cognition. Part 3 of this report follows this structure with the appropriation patterns personal theory / doing - applying / exploring / reflection.

Pupils then applied their learning, experiences, and reflection to their worksheets and workbook throughout the workshop. The worksheet followed the circle '*Animals in War*'.

On the basis of these routines and established practices of teaching, learning and communication in Lansdowne School and class, we decided to use Vygotsky's concept of learning as personal development to structure the workshop's realisation. Relevant practices - among others - included group work, circle discussion, support of 2 teaching assistants, experienced use of media and Internet. This core idea led the workshop to ensure that knowledge about war should be constructed by the students in the sense of their own re-interpretation. Re-interpretation of war should be a part of a collaborative knowledge construction which relates to contexts outside of the school in everyday life. In this line, the intention was to combine the media use with the concept of user generated context by means of mobile devices, Internet or traditional media offerings like TV-documentaries. The concept of user generated contexts, which stems from the computer theory (Dourish 2004)³, should be adapted during the workshop to a developmental view, and its practice on learning (see Pachler, Bachmair, Cook 2013, Bachmair, Pachler 2014a and 2014b)⁴.

The following first section (2.1) describes the impact of referring to Lev Vygotsky

- regarding student and teacher as learners,
- in the perspective of the developmental options of a learner,

- supporting scaffolding activities by the teacher or by contexts.

The idea of scaffolding learning and developing by contexts in the workshop '*Animals in War*' opens the recent discussion about mediated conditions for supporting students' integral learning within their development (see 2.2). Particularly mobile learning (see 2.1 ff), context awareness and user generated contexts (see 2.3).

This consideration combines the workshop '*Animals in war*' with the following guidelines of the project "students re-interpret war and peace" within the "we-learn it - learning expeditions".

- Personal life of students and youth culture as frame of re-interpretation: Students re-interpret historical facts with reference to their personal life within today's youth culture, their peers and their personal lifestyle. The media's link to individual's personal lives, and therefore personally owned mobile devices have a high value to mediate the world around today's younger generations.
- Opening of the school and context awareness: Students create enhanced socio-cultural connections and links to non-school contexts, including local war memorials and internet sites. Students can investigate non-school contexts which are non-related to the issue of war, but typical for youth and consumer culture.
- Investigative learning with cooperative knowledge construction with the teacher guiding learning. Situated-learning on the basis of students' cultural resources (Smart phones or tablets) can be realised e.g. in the form that students investigate family stories, interview migrants, discover war remains in their own life world, war and peace stories in media content, war related apps on the internet.

The following sections of the report begins by introducing the learning theory that underpinned the teacher's pedagogical practice (see chapter 2.1), and the IoE facilitator's orientation towards mobile devices as an educational tool (see chapter 2.2 ff.). Through various planning discussions, the teacher and IoE facilitator achieved an opening of the school context (see chapter 2.3). During the project students opened their own ways of learning and transgressed the intended learning outcomes on the basis of their habitus of learning (see chapter 2.4) e.g. by creating their own work space (see Jermaine's workspace, chapter 2.1.2 a), and their forms of cooperation and creativity in situated or teacher guided learning (see chapter 2.5).

2.1 Lev Vygotsky's concepts of learning as development as framework for the project

As already put in the foreground, the teacher's leading idea on learning and learning outcomes is based on learning as part of the student's development as person. With this understanding, the teacher refers explicitly to Lev Vygotsky's role of instruction and Vygotsky's "Zone of Proximal Development" as an orientation to learners and their personal development.

In Vygotsky's terminology (1978, p. 86) the teacher tries to support students to get "*the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.*" The teacher widens Vygotsky's proposal for developmental support by enhancing the recent communicative resources of the students in their everyday life.

In this line teacher uses the FRESH-structure (see below) as feedback tool for students to scaffold (Wood, Bruner, Ross 1976)⁵ their behaviour in class and school. He strictly adheres to *obuchenie* (tuition) as a principle for sustaining a learning environment – by demonstrating teaching staff learning this teaches the students how to learn, and that learning is an ongoing process. For this reason, teaching assistants are never informed of the subject matter or lesson structure beforehand.

Vygotsky's theory was usually taken into account when planning learning in school, and the theorem of "zones of proximal development" was discussed. The teacher contributed his already existing practice of *obuchenie* (tuition) in the way that teacher and students are together learners. Furthermore, the teacher's established practice of a feedback procedure ("FRESH") led to looking for practices of scaffolding in the sense of J. Bruner's interpretation of supporting students in their learning in their *zones of proximal development* so that they can pass to a higher level of development.

2.1.1 Obuchenie (Обучение, tuition): All participants to the project are learners^{6 7}

The teacher sees himself in line with Vygotsky's concept of *obuchenie*, which relates with Vygotsky's consideration of "Zones of Proximal Development" (ZPD). *Obuchenie* focuses on the teacher-student-relation. Teaching and learning are not separate. Examples include teaching assistants as learners, IoE-facilitator presents himself as a bee keeper, and researching his grandfather in law in World War 1 and his dog (4th session, 2nd section in 2nd week). The teacher wants to demonstrate a teacher's role of a learner. He realizes not only that he presents himself to the students as a learner who listens to documentaries on podcasts but as integrating students cultural resources from everyday life (Internet, images, sound) into school (4th session, 3rd section in 2nd week). **By this he widens the formal learning context of the school to everyday life, and supports students' generated context. This assimilates Vygotsky's framework to the actual life and cultural resources of the students.**

In the line of argumentation of the ZPD the teacher's practice of *obuchenie*. *Obuchenie* means that all participants are learners. User generated contexts⁸ are not only part of developmental contexts. In the sense that he or she uses a free app of Halftone2 to develop their potential (see below 2.1.2a: Jermaine's personal, protective workspace under the condition of user generated contexts). User generated contexts widen school among others to internet (e.g. Google images about 'Animals in War'⁹-in: 1st and 2nd session: personal theory on war), but also to TV documentaries. The idea of user generated contexts offers a practice which brings together students as learners with their

teachers as learners. The teacher shows himself as a learner not by using the internet but by telling the story of 'Lizzy the Elephant' - a working animal in World War 1. With this story the teacher opens his personal media world to which belongs the documentary *'Lizzy the Elephant'*.

The teacher's intentions are to implement an open-ended project so that the teachers' can simultaneously teach and learn from students about 'animals in war', and how to utilise mobile technology as a learning tool. Obuchenie can be defined as a process where teaching and learning are not separate. This forms a central tenet of the teacher's pedagogical practice because the students' see and understand the world differently due to their conditions. The teacher's main task is to learn about how that particular individual learns and sees the world. Teacher's statement:

"No theory or textbook could ever replace a tailored teaching programme based on that students' complex needs. What's more, I never inform or instruct my teaching assistants on the structure or content of the forthcoming lesson. I find it valuable for a student to see an adult learning as part of an ongoing life process, and learning from how the adult learns. It is for this reason we decided to introduce Ben as a bee-keeping student and researcher, and as me learning about 'Lizzy the Elephant' from a podcast I had listened to at home."

2.1.2 Zones of Proximal Development as the "buds" of learning and the input for supporting the development by learning with recent cultural resources

The theoretical frame for students and teachers as learners and collaborative supporters of learning refers to Lev Vygotsky and his interpretation of learning as development with the concept of 'Zone of Proximal Development' (ZPD). Proximal development is a stadium or level of a child's development. Vygotsky tries to argue in respect to the learners' developmental age / level:

..."zone of proximal development of today will be the actual developmental level of tomorrow - that is, what child can do with assistance today she will be able to do by herself tomorrow" (1978, p. 87)¹⁰.

Vygotsky describes the learner's development from "buds" or "flowers" to "fruits", in theoretical terms:

"The actual developmental level characterizes mental development retrospectively, while the Zone of Proximal Development characterizes mental development prospectively" (1978, p. 86 f.). "The zone of proximal development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state" (1978, p. 86).

In his central definition of ZPD, Vygotsky points to "adult guidance" or "collaboration with more capable peers" (1978, p. 86). However, these two addressees, adult, in school the teacher, and peers, deliver different forms of "guidance". With the concept of obuchenie in mind, teacher and students as learners, Vygotsky's hint to the peer support is relevant for the integrating informal ways of recent peer-to-peer-communication. The teacher explicitly looks for such communicative forms, which he enhanced for students personal development such as informal investigation of the Internet when finding the preferred animals e.g. the cat which protects the toddler from a dog (Jermaine) or images of pigeons in war (Carly), dog as mascot (Darren), hyena (Valerie) (1st., 2nd and 3rd session)

a) Jermaine's *personal, protective workspace* under the condition of user generated contexts

Additionally, Jermaine's personal, protective workspace is a widening of Vygotsky's proposal to support Jermaine in passing from his "Zone of Proximal Development", the "bud" or "flower" to his "prospective" developmental level (1978, p. 86). This development, the fruit, became visible among others by his rather complex story about animals in war (1. narration) and a comic strip as result of his reflection of the excursion to the Cavalry Museum (2. narration).

When producing his story about animals in war for his exercise book (6th session in 3. week of workshop) Jermaine needed a protective space which he organised by listening, partly by watching to music videos. Jermaine accessed the video platform 'vimeo'. The teacher is familiar and cooperative with Jermaine's desire for a protective space. Music from mass communication and entertainment is a usual form of separating from the here-and-now environment. The here-and-now situation is widened by a user generated video-context. Target oriented working, writing as narrative, is integrated part of a user generated context by means of tablet and video platform in the Internet. In his communication with Jermaine, the teacher calls this "Jermaine's workspace". Alternatively to this protective workspace, by means of tablet and user generated internet context in the classroom a noise protected area with chair and table is made available.

The visible part of the *workspace* is set up by the tablet, which is connected to the internet. Jermaine does not use an ear set which is why the music sound is audible to the class but

not as loud that is disturbing.

In this *workspace* Jermaine writes his rather complex story about animals in war (see part 3, 6th session in 3rd week: "exercise book as interface for narration").

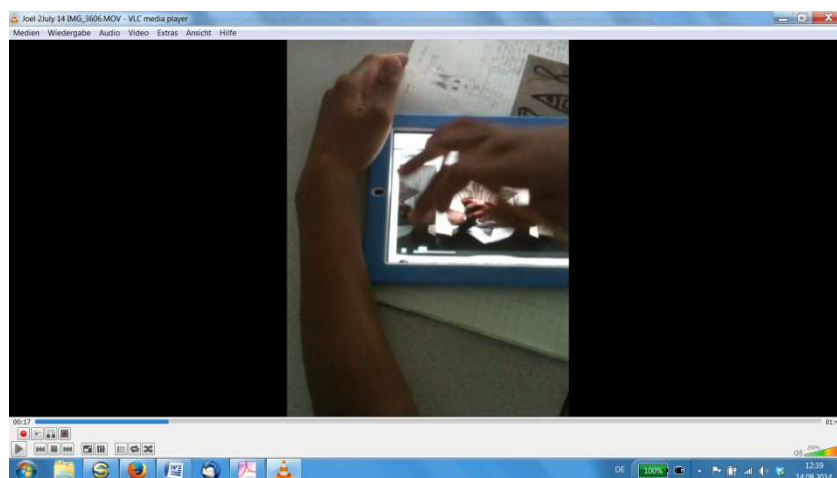


Fig 2 : Jermaine's personal work space, print of a video still, videos documents: "Jermaine music video with dancers, woman giving birth 2July 14 IMG_3606"," Jermaine music video with monkeys 2July14 IMG_3603

In such a self-generated *workspace*, Jermaine searches for his own graphic tools to write his story about animals in war in addition to his handwritten story in his exercise book. He used the app Halftone 2 for his comic strip. Furthermore, he wrote his report about the excursion to Horse Guard's Parade and Animals in war Memorial (2nd narration in 9th and 10th session 4rd week of the workshop) using this app.

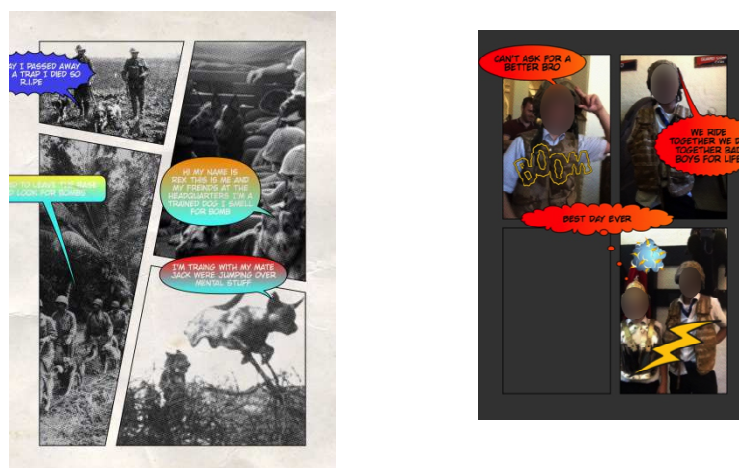


Fig. 3 +4:

The teacher motivates explicitly the practice of "Jermaine's workspace" with Vygotsky's concept of the "Zone of Proximal Development". Practically he refers to examples of *workspaces* in the Internet, which are: "Kamara Work Space", <https://www.youtube.com/watch?v=FPR5jl9s-ks> or "Google Work space", https://www.youtube.com/watch?v=bpm_LlyMtMY. as arguments for why such a workspace should be facilitated in the classroom.

b) Personal theory of war

During the 1st and 2nd session students looked for animals with relation to war. Among others they found a video of a cat which protects a toddler against an aggressive dog (Hero Cat Saves Child from Dog Attack, <http://www.youtube.com/watch?v=jZJ5AA2gpwU>); pigeons fight over chips on street or checked a google website about animals in war¹¹.

The teacher summarised the central points of the brainstorming by means of a 'circle of animals in war': my favourite animal / working animals in war / vulnerable animals in war / role play = me as animal. Talking with students the teacher wrote the key words on the whiteboard (not the digital one). As result of this common consideration arose the circle as summary.

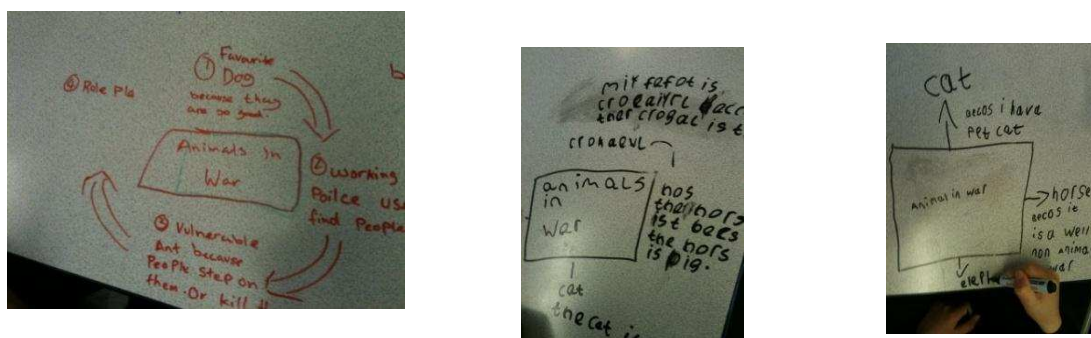


Figure 5-7: Summary of discussion about the circle *animals in war*, which was guided by teacher. Applying the circle to work on the own favourite animal (Thursday 26 June, Afternoon, 4th section)

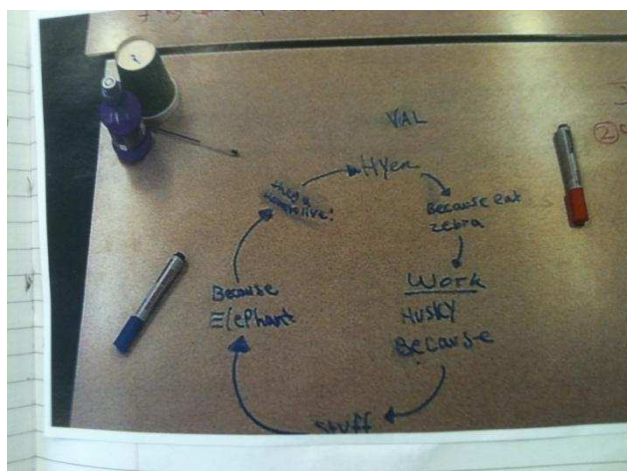
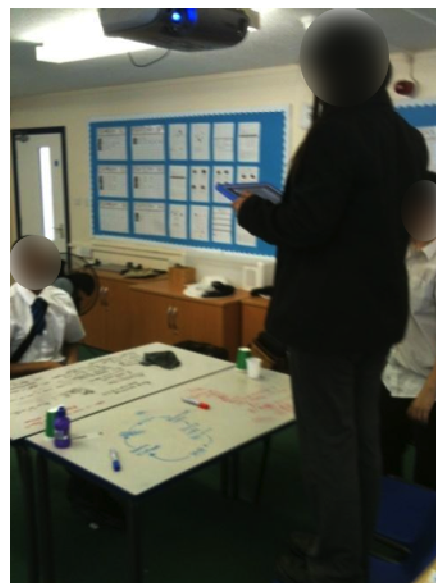


Figure 8+9:: Thursday 26 June, afternoon, 4th section, Valerie applies the circle *animals in war* to her favourite animal, the hyena, and takes a photo of her result with the group's tablet, see also Scenario 1: photos of results of reflection (described Wednesday 25 June)

Students write in groups of three on the surface of their tables and transfer results in their workbook. Valerie uses the circle for analysing her favourite animal, which is a hyena. With

the group's tablet Valerie takes a photos of her circle 'animals in war'. She adds a print out of this photo to her story about hyenas in her exercise book.

c) Reflection

Students partook in a session where they peer-assessed each other's work – 'What Went Well' (WWW) and Even Better If (EBI). Students actively embraced the idea of peer assessment. However, feedback didn't transcend further than 'need more detail or 'write more'. I was aiming for assessment to reflect the animal's working role or vulnerability. I'm not sure if this was due to semiotic mediation not occurring due to my instructions or a limit to their understanding.

Annie came up with an excellent idea - much in the spirit of this project - that we film each other role playing an animal in war and then email these to you for your feedback. Annie also suggested creating an 'Animal in War' postcard to send to IoE facilitator.

Students taught the school (teaching staff included) about 'Animals in war', by presenting their findings in the school assembly. 8JH have decided to use PowerPoint, their photo diary/story from their exercise books, videos of them reading their 'Animal in War' story from the iPad, keynotes, role play via the iPhone app, Halftone 2. It is of the belief that teaching will further increase retention in accordance with Dale's Learning Cone.

2.1.3 Scaffolding

The concept stems from Wood, Bruner, Ross (1976) and focuses on a wider repertoire of a tutor's intervention which enables a learner not only to achieve a "goal" but to "develop" a "task competence" "that would far outstrip his unassisted efforts" (p. 90):

"... it involves a kind of 'scaffolding' process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts. This scaffolding consists essentially of the adult 'controlling' those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence. The task thus proceeds to a successful conclusion. We assume, however, that the process can potentially achieve much more for the learner than an assisted completion of the task. It may result, eventually, in development of task competence by the learner at a pace that would far outstrip his unassisted efforts." (Page 90).

In this line teacher uses the FRESH-structure as feedback tool with students to scaffold their behaviour in class and school. Further the digital tools available in the classroom were seen as tools for scaffolding. Available in classroom are 3 tablets and the PC with Internet access plus printer and electronic whiteboard.

a) FRESH feedback system

Teacher structures activities of students by means of the FRESH-schema, which is well accepted by students. It provides a sustainable climate of learning and social interaction.



Figures 10+11: Poster with FRESH rules in classroom and list to give each student a feedback about their personal behaviour.

b) Jermaine's workspace as a scaffolding structure

see above 2.1.2 a)

c) IoE facilitator's mobile portfolio

Wood, Bruner, Ross' (1976) advise that a way to observe and interpret what students achieved can be achieved via the input to the teachers' mobile portfolio. This consists of

photos and videos made with the smartphone. This photo and video material is the fundament of this report. Students used the available 3 tablets to take photos for their photo diary. This photo material was essential for the students' presentation of their project's outcomes to the school public.

"Well executed scaffolding begins by luring the child into actions that produce recognizable-for him solutions. Once that is achieved, the tutor can interpret discrepancies to the child. Finally, the tutor stands in a confirmatory role until the tutee is checked out to fly on his own." (Wood, Bruner, Ross 1976 p. 96)

2.2 Actual *mediated* conditions for supporting students' integral learning within their development

This conceptual approach of the *zone of proximal development* set child development and curricular learning in a common context. For the actual generation of learners this context is updated by recent cultural resources for teaching, learning and development. There are typical digital resource like the electronic white board or mobile devices like the tablets, which exist in school and in everyday life.

2.2.1 Mobile¹² and digital equipment- media set in school

- Students work with 3 tablets, which belong to the science department. Teacher decides when students get the tablets
- Teacher makes available his mobile to students,
- Desktop PC with Internet access and access to electronic whiteboard in classroom. Printer.

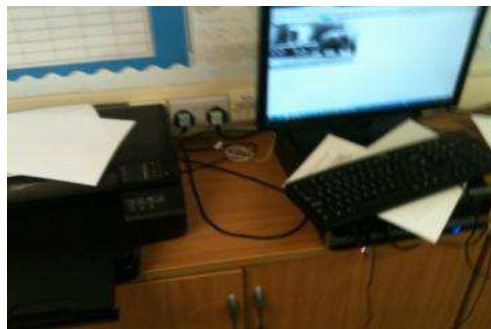


Fig 12:

- Desk and board pen as a specific mobile but not digital device

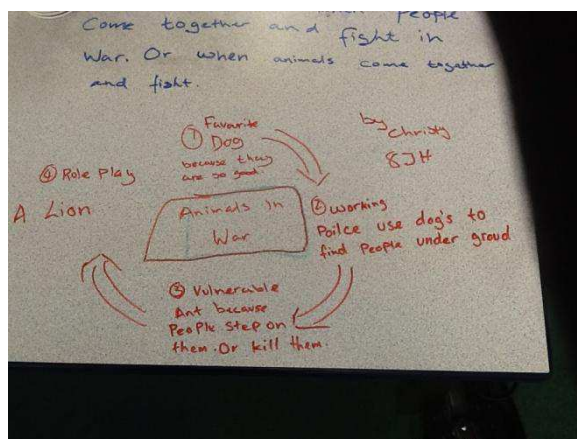


Fig 13:

Teacher's statement:

"I believe this constitutes mobile learning. It is interactive, you can move it, you can edit it, you can collaborate, you can display. Does something have to be electrical to qualify as a mobile device?"

2.2.2 Mobile devices on the excursion to Animals in War Memorial in Hyde Park, and Horse Guard's Parade (see report, part 3, 7th session).

a) Picnic at Animals in War Memorial



Fig 14+15:

During the picnic some students played digital games on tablets (photos below of a member of the teacher's team). They widen the relaxing part the school event by playing in the manner of their everyday life.

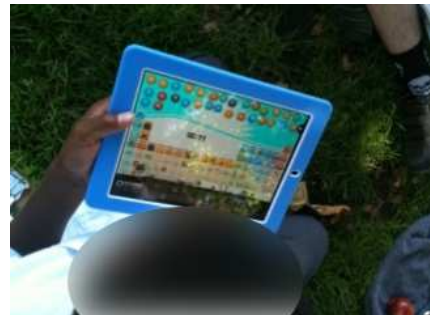


Fig 16-18:

After the picnic students and teachers investigated the memorial, worked cooperatively in their exercise book, and met for a common discussion.



Fig 19 - 22

b) Investigation of memorial, reading of, and listening to the self-written stories about favourite animal in the workbook

In the diary of the excursion among others the following three aspects of becoming aware of animals in war became visible:

- Specific features of animals, example of the dog below;
- Interrelation of animals at different sites
- Empathy for a vulnerable animal.

c) Open investigation of relevant objects

Students walk through Whitehall and investigate the environment e.g. by coincidence an unknown memorial



Fig 23-25

Students took photos with their three available tablets. One student goes closer to see and take photo of the embossment at the monument.



Fig 26

d) Mobile devices on Horse Guard Parade: Applying the *Circle Animals in War* which enhances awareness about horses in different contexts

Excerpts of students' diary below indicate that students are aware of what was prepared about animals in war in school. Images in their workbook show two working animals in relation, parading Horse Guard (left photo) and horse in war (right photo).

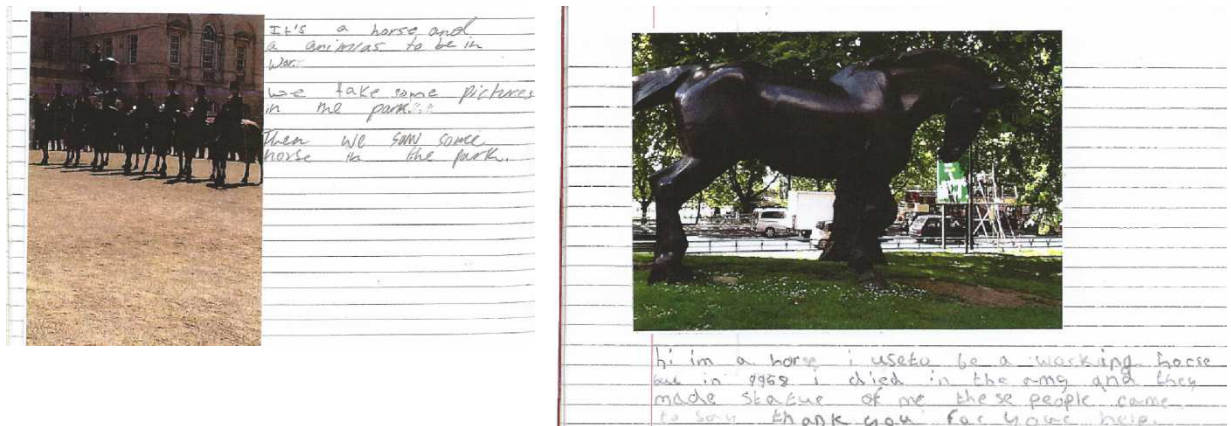


Fig 27+28

Beside the photo of the horse guard and its comment (left) follows a photo with the metal sculpture of a horse at the Animals in War Memorial in Hyde Park.

Another diary shows the same relation between working horses on the two different sites of excursion, horse guard and animals in War Memorial. **The analytic *Circle Animals in War* opened the students view on working horses during a parade or in war. The circle enhances the context awareness which is prepared by the offering of the memorial.**

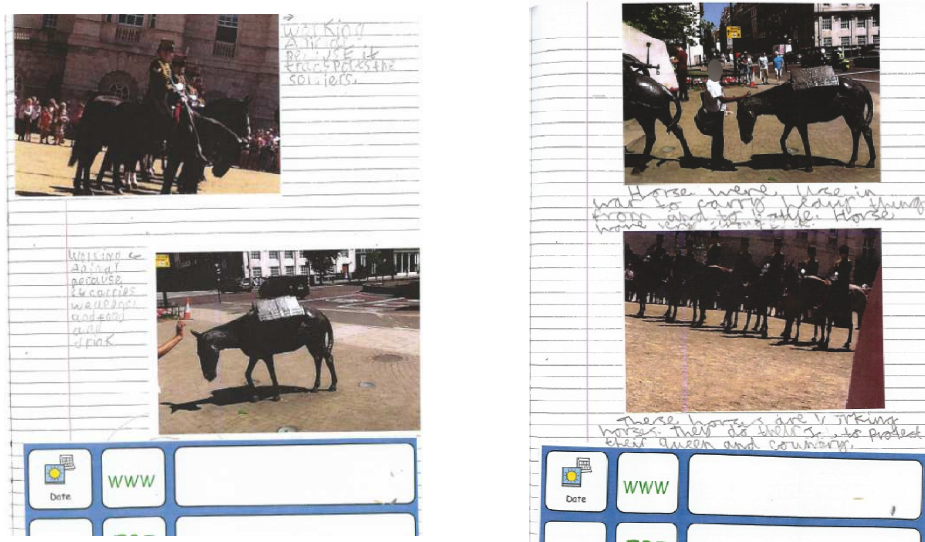


Fig 29+30

2.2.3 Digital means in the process of re-interpretation: narration as multimodal bricolage

Students re-interpret the circumstance and facts of war with reference to their personal life within today's youth culture, their peers and their personal lifestyle. Their media link to their individual's personal lives. (See the workshop's objective in relation to the IoE-project *We learn it: "Personal life of students and youth culture as frame of re-interpretation".*)

The development, the process of the reinterpretation within the workshop *Animals in War* can be described

- (i) from the brainstorming in session 1
- (ii) over the personal theories about war verbalized by the students with their graphic images on their tables by means of the circle 'animals in war',
- (iii) the narration about the favourite animal to the
- (iv) final presentation to the school.

The main means of re-interpretation in this process were:

- developing narration mainly by brainstorming (see report, part 3, 2nd week) analytic;
- tool of the circle 'animal in war' (in figure below second photo from left)/ Internet and media (e.g. documentary) as sources mainly for images (in figure below first photo from left)
- tablet photos for documenting the process of writing the story (see m-scenario 1 in 2nd week and report part 4) .

Narration¹³ as one main means of re-interpretation of war and peace. It summarizes and objectifies associative brainstorming and processes of searching and exploration

Altogether there were three timeslots with three different narrations.

- 1st narration was on a self selected animal *My favourite animal* and summarized the associative approach to what is war about.
- 2nd narration is after the excursion in the 3rd week of the project: *report of the trip*. This 2nd narration is based on a diary of the excursion to Horseguard and its Cavalry Museum in Central London, further to the Animals in War Memorial in Hyde Park.

The form of both narrations were a combination of hand written text with photos in the students' exercise book.

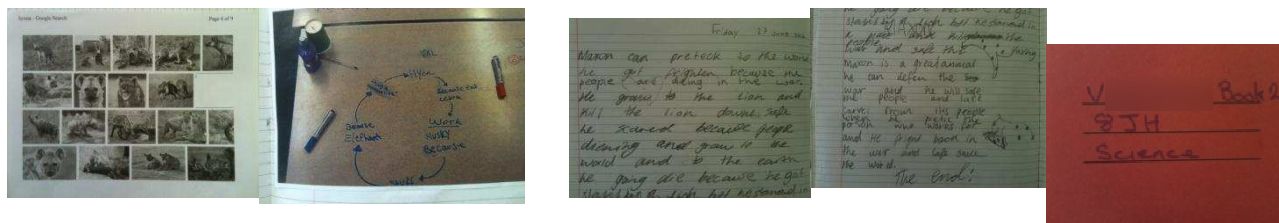
- 3rd narration has the form of a report about the workshop to the school public in the main hall of the school. The report was presented on PowerPoint slides.

A helpful perspective to interpret the three narratives is that of Jocson (2012)¹⁴, who views text production as narrative bricolage. She valorizes the text production of young people from non-dominant racial and ethnic backgrounds, recognizing that their literacy is changing and that the separation of the world of learning in school from everyday life is dissolving in a "proliferation of spaces" (Jocson 2012, p. 298). Young people traverse spaces and use different interfaces for their communication. Further, they copy and paste

“Narrative’ is an abstraction of history, a congealing of experience into a chain of events that is part of a larger whole, common in storytelling and conversation”, Jocson (2012, S. 300).

1st narration *My favourite animal* is the summarizing form of the process of re-interpretation what war is about. 1st narration is:

- Valerie focuses her 1st. narration on her favourite animal, a hyena.



During brainstorming in the 1st and 2nd week (Thursday, June 26 and Friday, June 27) Valerie finds images of hyenas in 'the internet. By means of the *Circle Animals in War* she relates the hyena to other animals: zebra, husky, wolf, elephant. Finally she writes the story into her exercise book. In the final 3rd narration, the PowerPoint presentation at the end of the workshop Valerie does not refer any more to the hyena.

Fig 37 - 39

Further examples see part 3 of this report, 5th and 6th sessions at the end of the 2nd and the beginning of the 3rd week of workshop.

Discussion of the 2nd narrative: *Excursion to Horse Guard Parade, Cavalry Museum and Animals in War Memorial*, see part 3 of this report, 7th and 8th session.

Discussion of the 3rd narrative: Presentation to the school public, 12th session.

2.2.4 List of scenarios with relevance to mobile devices (based on mobile devices)

- Scenario: photos of results of reflection (described Wednesday 25 June)
- Scenario: textbook diary with tablet photos (described Wednesday 25 June); Thursday, 26 June14: in Science, Daniel takes photos for diary
- Scenario: Verbalization in groups with tablets+writing, Thursday, 26 June14
- Scenario: image from internet for story writing, Friday, 27 June

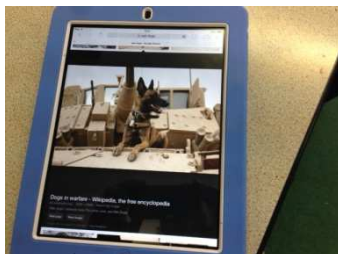
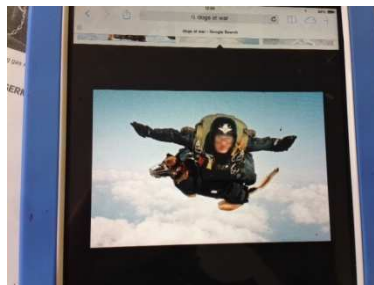


Fig 40 - 43

- Scenario: Student generated workplace, Jermaine Wednesday 2 July 2014
Video "Jermaine 2July 14 IMG_3606"
Video: "Jermaine 2July14 IMG_3603"
Jermaine-Tiger, music video from ipad for own protective workspace
- Scenario: teacher's mobile for generating workspace Devante+ Rhodein -7NM
- Scenario: investigation of sites (cavalry museum, memorials).

2.3. Opening of the school context and context awareness

On the basis of Lev Vygotsky's model it is possible to enhance the context debate to which contribute among others Dourish, P. (2004), Luckin et al. (2009) or Cook et al. (2007). The practical task will be supported theoretically by the Conversation Framework (Laurillard 2002, 2007) and the conversational integration of contextual zones of development with user generated contexts or contexts, which are introduced by the school.

Within the workshop, students create enhanced socio-cultural connections and links to non-school contexts, including local war memorials as internet sites. Students can investigate non-school contexts which are non-related to the issue of war, but typical for youth and consumer culture.

a) Jermaine's personal, protective workspace, an example of user-generated context.

Description see above 2.1.2a)

Comment of the Teacher

"This comic strip is very typical of Jermaine's behaviour. When you provide him with a task he won't complete it how you instructed but will all the same complete the intended learning outcome. In this case, Jermaine was being told off for not working on his presentation on 'What his class enjoyed about the trip' – only to discover that Jermaine had created this comic strip in Halftone 2 on his own accord. Once more, Jermaine had created his own context and workspace, whilst giving the impression of not following instructions, and partaking in class."

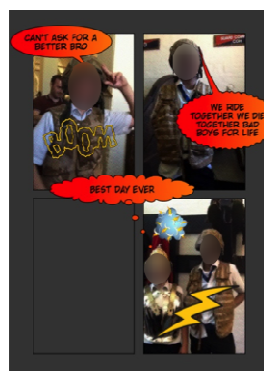


Fig 44

b) Opening the school context to Internet: Google image and YouTube

Students accessed the Internet because they had an image of an 'Animal in War' in their head. They then had to find an image/footage that reflected this.

In session 1 and with the 3 available tablets in classroom students access the website Google image. They searched for an image which corresponded to what they had already brainstormed as their favourite animals, and also for fighting and attacking animals. Students copied and pasted images to PowerPoint.

Images were selected in respect of gender. Boys looked for Tom and Jerry or watched a YouTube clip in which a cat rescued a toddler from the attack of a dog (Hero Cat Saves Child from Dog Attack, <http://www.youtube.com/watch?v=jZJ5AA2gpwU>) ; pigeons fight over chips on street. Girls mainly looked for fighting animals like fighting deer. They

interpreted 'animals in war' as animals fighting to each other.

c) Teacher opens the school context to podcast documentaries

User generated contexts widen school among others to internet (e.g. Google images about animals in war, but also to podcast documentaries. The idea of user generated contexts offers a practice which brings together students as learners with their teachers as learners. The teacher shows himself as a learner not by using the internet but by telling the story of 'Lizzy the Elephant', a working animal in World War 1. With this story the teacher opens his personal media world to which belongs the documentary 'Lizzy the Elephant'. The teacher introduces a podcast which he has watched to widen the formal learning context of the school to everyday life, and supports students' generated context e.g. hyena, story about protective cats from Internet.

d) Awareness about learning: photo diaries of learning progress, learning outcomes and excursion

Description see report, part 3, 7th and 8th session

e) Interrelation of animals at different sites of the excursion (context awareness)

Furthermore in their diaries students compare horses at the Horse Guard's parade and horses as sculptures at the Animal in War Memorial.

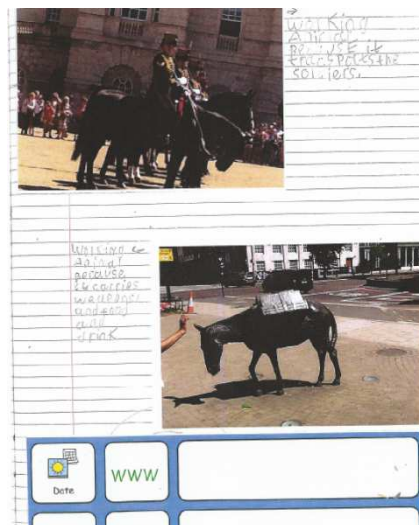


Fig 45

f) Empathy for a vulnerable animal

Comments to the following photos of a horse at the Animals in War Memorial in the excursion diaries (2. narration) indicate that students developed empathy for the vulnerable animal. ... "this is a horse carrying an object. Toby was stroking ... stake."

A very similar photo describes the horse as "vulnerable". "This animal was a vulnerable animal because you can see in the horse face that it was struggle, to carry that heavy weight in it back."

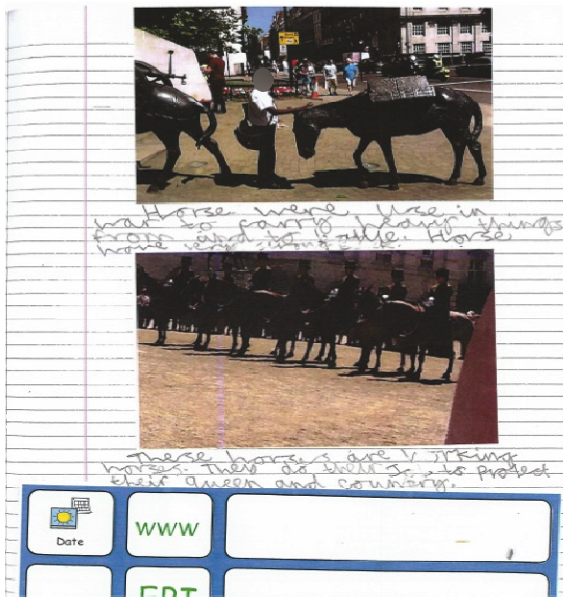
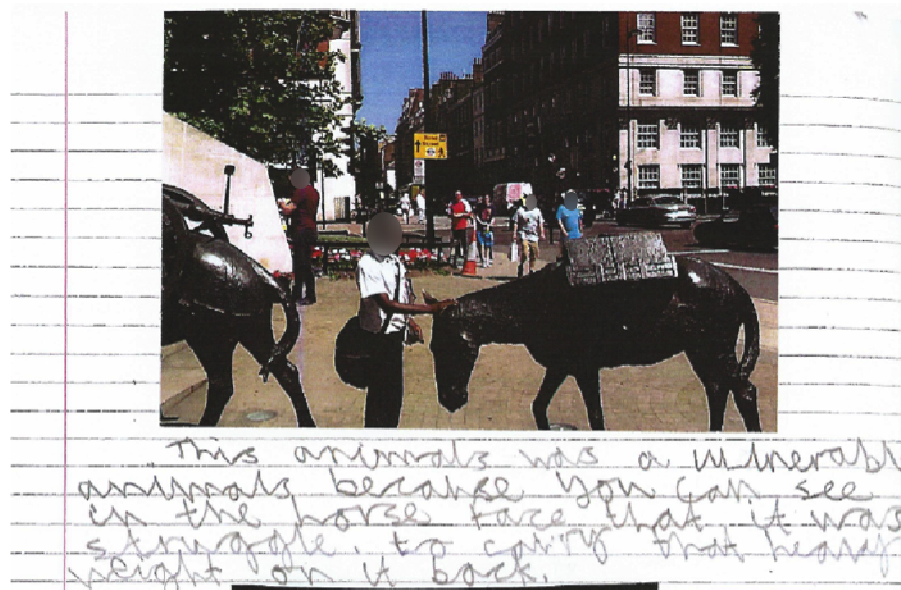
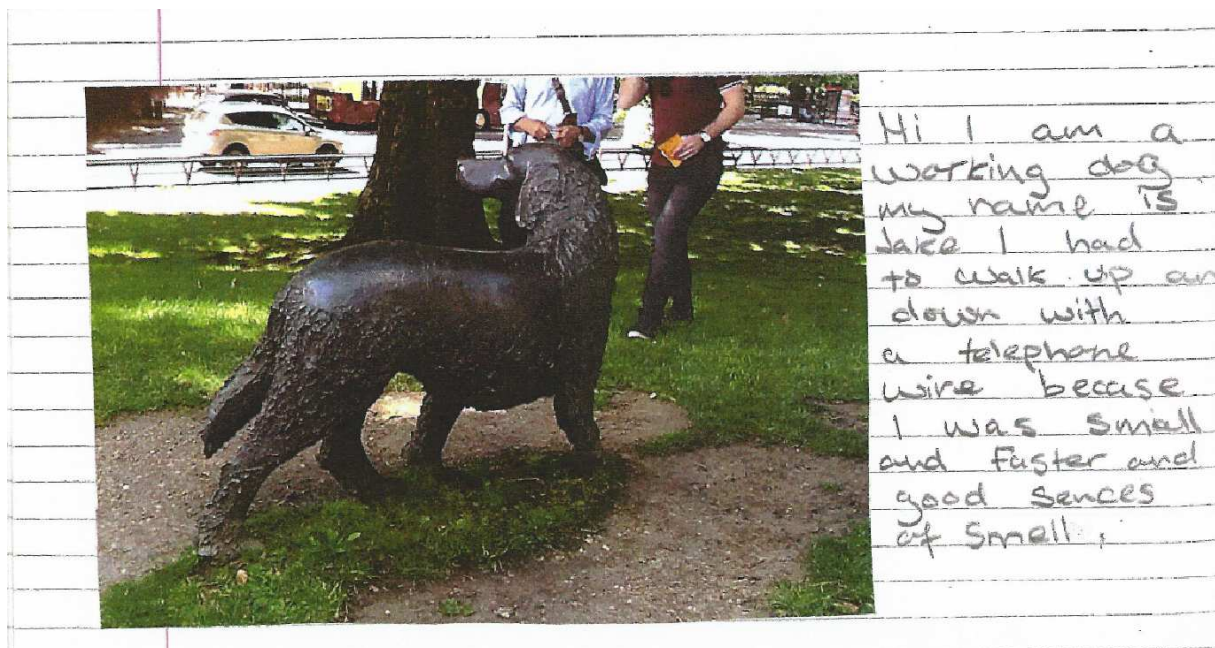


Fig 46 -48

g) IoE facilitator's diary on his smartphone

h) Students' awareness for animals by theoretical work in school and investigation outside

Students achieve a higher-level knowledge about features of animals, as a result of their interplay, analytical work in school (circle of animals in war), and their excursion with investigation of sites.

On the excursion, and later in their report about the excursion in their exercise books (2nd narrative), students applied the "circle animals in war" which enhanced a verbalized form of awareness about animals' activities for working in the context of a parade or in war. This awareness suits to the *Special Educational Needs school's PIVOTS sub-levels for students to achieve* (see below). Essential for this was taking photos with tablets and the teacher's smartphone at Horse Guard's parade, and at the Animals in War Memorial. For the development of the Circle Animals in War in the second week of the project students took photos of their progress. The development of the Circle was directly linked to images of animals which students downloaded from Internet by means of their tablets. They applied the categories of the Circle: my animal, working animals, vulnerable animal, and role play, to the downloaded images on tablet and, later, to the printed images.

On the excursion to Horse Guard's Parade, and Animals in War Memorial, students applied the *Circle Animals in War* to find the specificities of animals like these of a dog named "Jake".

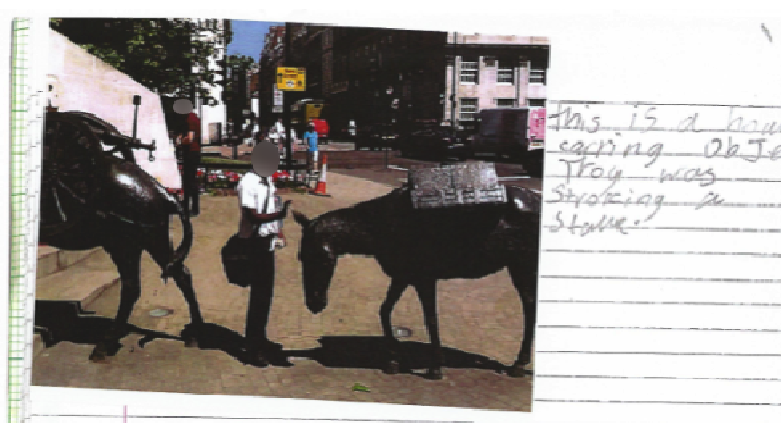


Fig 49

i) Context awareness as tourist and learners on the educational visit (report part 3, 7. session)

The educational visit (the terminology of the teacher) is also a tourist event, which suggests e.g. to take photos in a tourist perspective e.g. self-representation at prominent sites. For the excursion, students received a worksheet and the three available tablets. They carried their exercise books with them. These three tools enhanced an active participation in the investigation of the two different sites of the parade and the memorial - being in a move on the site of the Horse Guard's parade the handling of worksheet, exercise book and tablet book was rather difficult for the students.

However, students also used the educational visit **like other tourists** and took photos on the excursion, e.g. self-representation with police horse.



Fig 50+51

(j) Jermaines "personal workspace" (see above 2.1.2a)

For producing his story about animals in war for his exercise book (3. week of project) he needs a protective space which he organizes by listening, partly by watching to music videos. Jermaine accesses the video platform "vimeo". Teacher is familiar with Jermaine's desire for a protective space. Music from mass communication and entertainment is a usual form of separating from the here-and-now environment. The here-and-now situation is widened by a user generated video-context. Target oriented working, writing as narrative, is integrated part of a user generated context by means of tablet and video platform in the Internet.

k) Tablet with games at the picnic at the Animals-in-War Memorial in Hyde Park (see above)

2.4 Habitus of learning- inclusion of playing and self-representation to target orientation

Learning as personal development integrates a variety of modes of learning habits especially playing, self-representation and target orientation

Visible was **playing** during working in groups in school at the group tables. It was introduced by the tablets. Also during picnic at Animals in War Memorial some students opened games on the tablet.

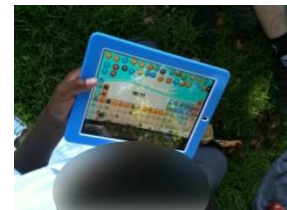


Fig 52 - 54

Ideal was the situation of self-representation in the Household Cavalry Museum, where a guard invited students to dress up with uniform items.

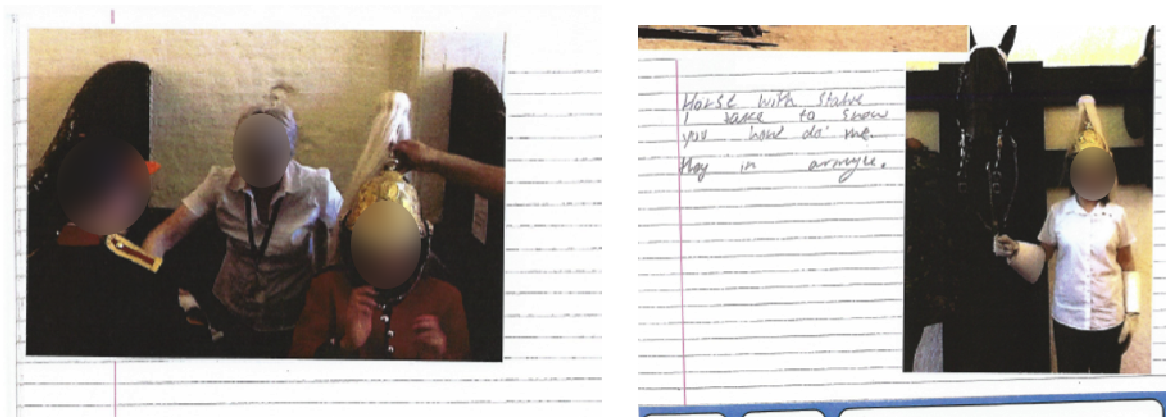


Fig 55+56: Photo of dressing up at the Cavalry Museum, photo left with support of the guide. Photo is printed and glued into student workbook

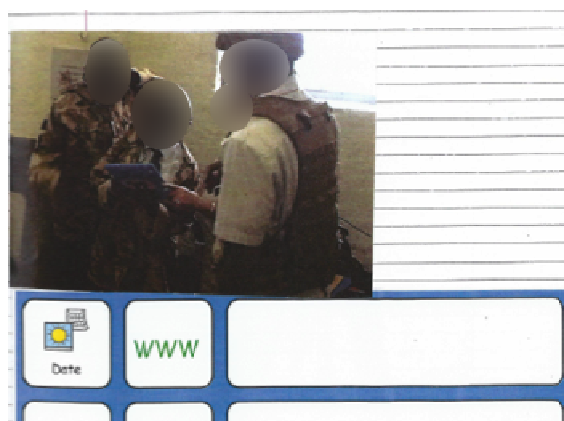


Fig 57: Boys in modern uniforms watch their photos in tablet

The excursion to Whitehall was also a journey so students made photos, like on holiday events which usually focus (among others) on self-representation. Changing of the guard and taking a photo with the mounted police is a typical photo on self-representation (photo left).

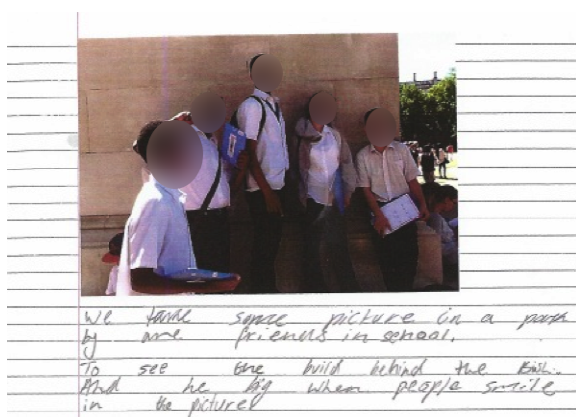
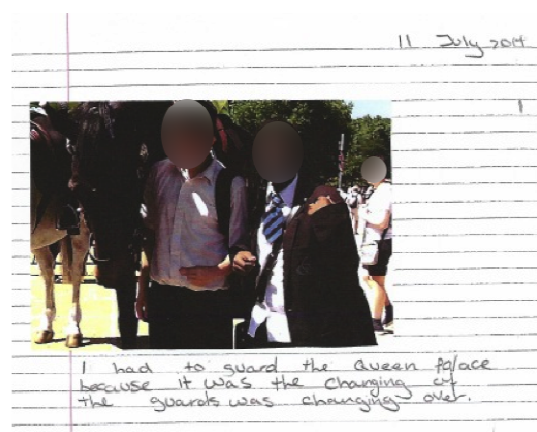


Figure 58 left + 59 right: Photo made by students at Whitehall, which was introduced in the workbook on Friday July 11th, a week after the excursion

2.5 Investigative learning and situated learning with cooperative knowledge construction with the teacher-guided learning

Situated-learning on the basis of students' cultural resources (personally owned Smart phones or tablets) can be realised e.g. in the form that students investigate family stories, interview migrants, discover war remains in their own life world, war and peace stories in media content, war related apps on the internet.

- Excursion to the Household Cavalry Museum and dressing up with uniform elements in the museum
- Spontaneous investigation of a war memorial in Whitehall
- Investigation of the Animals-in-War memorial in Hyde Park

As expected the explicit examples were on the excursion to Whitehall with Changing of the Guard, Household Cavalry Museum and at the animals in War Memorial in Hyde Park

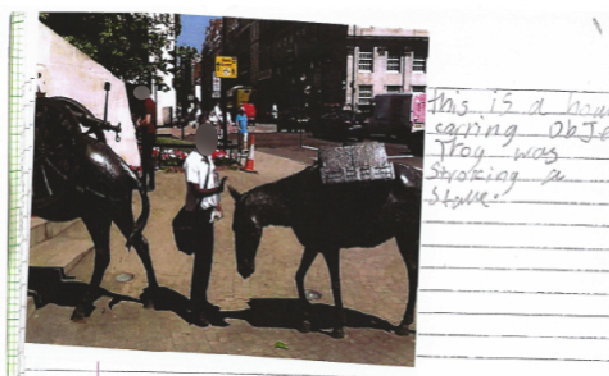
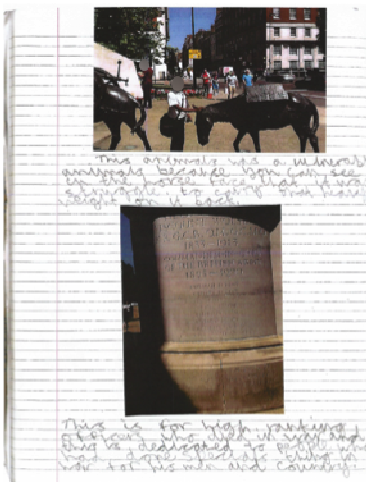
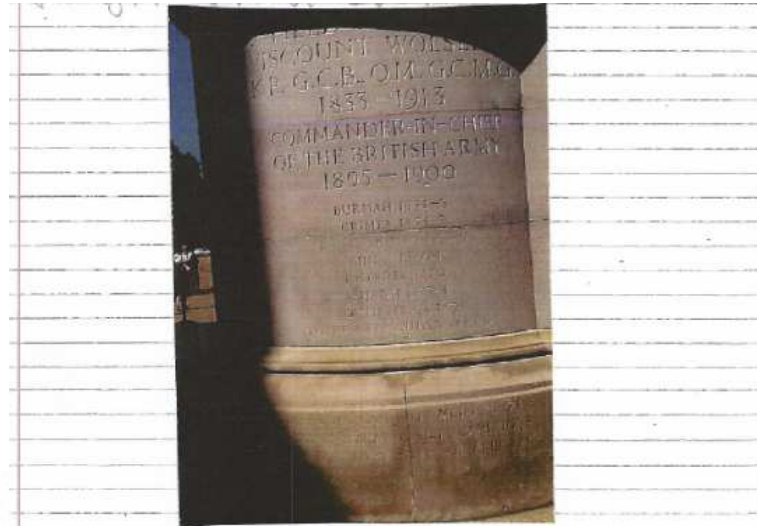
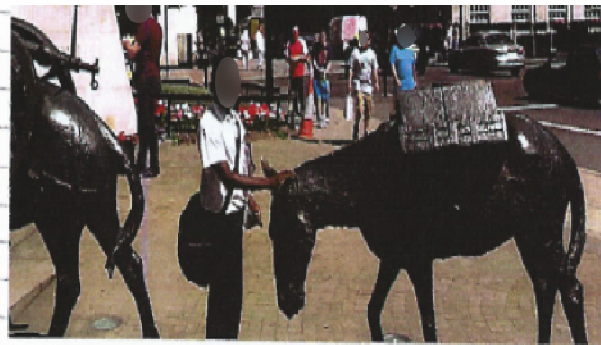


Figure 60: Photo connects the vulnerability of the donkey with the boy who strokes the donkey sculpture. Vulnerability is a learning objective and part of the analytic circle of animals in war.

The photos and text below stem from one page of a workbook. The text considers vulnerability (donkey) and the special deed of a high ranked officer. Two different frames of evaluation are opened and documented with the adequate visualisation (mode of representation: boy striking a vulnerable animal / written text on a column)



This is for high ranking officers who died in war and this is dedicated to people who had done special thing in war for his men and country.



This animals was a miserable animals because you can see in the horse face that it was struggle. to carry that heavy weight on it back.

Fig 61-63

3. Chronology of the workshop and planned patterns of appropriation

Due to an educational framework based on Lev Vygotsky's, the teacher tried to organise a time order for the workshop in respect of the following patterns of appropriation:

- personal theory,
- doing/applying,
- exploration,
- reflection.

These four patterns are oriented to what Lev Vygotsky's saw as main features of learning; especially that learning is part of the learner's personal development within their actual perspective options, and in cooperation with the peers' and teachers' (Zone of Proximal Development). The cooperation with the teacher comes from the fact that teacher also a learner (obuchenie, see part 2).

Overview over the 5 weeks of the workshop with 12 sessions

1st week with two session: Associative preparation of the issue war

Appropriation pattern: Personal theory

Session 1 and **session 2** on Thursday 19th June 2014, Friday 20th June 2014

Brainstorming, students develop verbalize their ideas on what war is about and write keywords on their tables in their familiar way.

2nd week with three sessions: Analytic work about animals in war and first narration *My favourite Animal*

Appropriation pattern: From personal theory to doing/applying

Session 3 on Tuesday 24th June: Students choose their preferred animal in war e.g. pigeon, hyena, horse (appropriation pattern: personal theory).

Appropriation pattern: doing/applying

Session 4 on Thursday 26th June, **session 5** on Friday 27th June

Students check internet and other media sources (podcast documentary) which led to write a story with images in the students' exercise book (1st. narration). Selection of animal in war and story writing was accompanied by the *Circle Animals in War*, which finally consisted of: "Favourite", "Working", "Vulnerable", "Role play" (me as animal).

3rd week with three sessions: Finalizing of the first narration (session 6) and educational visit (excursion) with report in exercise book (diary, 2nd narration)

Appropriation pattern: from doing/applying to exploration

Session 6 on Wednesday 2nd July: Finalizing and writing of the story about animals in war (still, appropriation pattern: doing/applying).

Appropriation pattern: Exploration

Session 7 on Thursday 3rd July (excursion), **session 8** on Friday 4th July (report: 2nd narration)

Students and teachers visit *working* horses of the queen's horse guard and The Household Cavalry Museum in Central London, then the memorial for Animals in War in Hyde Park London (*vulnerable* animals). After the visit students wrote a report for which they used the photos which they had taken with their three available tablets (2nd narration).

4th week with two session: Reflection and further planning with peer assessment and student-led collaborative learning

Appropriation pattern: Reflection

Session 9 on Thursday 17th July, **Session 10** on Friday 18th July: Students consider what they had done and achieved already.

5th week with two sessions: Preparing a summary for a public presentation (3rd narration)

Appropriation pattern: Reflection

Session 11 on Wednesday 23rd July, **session 12** on Thursday 24th July.

Students plan and realise a public presentation of the project results to the school public. Technological constraints lead to PowerPoint as tool for the presentation.
Students plan and realise a public presentation of the project results to the school public. Technological constraints lead to PowerPoint as tool for the presentation.

1st week of workshop:

Thursday, June 19th, Friday, June 20th 2014

Associative preparation of the issue *war*

Appropriation pattern: Personal theory about war

1st session, Thursday, June 19th 2014, 2nd session, Friday, June 20th 2014

Approaching the concept of war by brainstorming

Teacher and IoE-facilitator discussed at the beginning of the project that (statement of the teacher) "we did not want to pre-define war/animals in war as we felt we could learn more from the students as they'd be able to identify things that we couldn't". Also, we wanted to learn how students use mobile devices with the view of encouraging bring your own devices, and implementing mobile learning.

Statement of the teacher: "We wanted to know what the students preconceptions of 'Animals in War' were before our workshop. We did not want to pollute or contaminate this perception with any definitions from myself, the teaching assistants, or their peers. Therefore, I made implicit instructions for teaching staff to make no suggestions whatsoever nor students to share their notions. To facilitate this learning environment I gather the students around the table. I then asked them all to close their eyes and visualize an animal in war. Then to remember it but not share their ideas. I then asked the students to imagine they were changing channels and saw another animal in war; once more with the same instructions. This was repeated one final time. Students were then instructed to find representations of their images on Google images, and then copy and paste into a PowerPoint presentation. The results were interesting and varied – ranging from pigeons fighting for chips on a street to Tom and Jerry to deer locking antlers to YouTube footage of a pet cat protecting a toddler¹⁵ from being attacked by a dog."

Students worked in their familiar forms, especially verbal brainstorming and writing of keyword on their tables. Issue covered what is war about? Students considered and discussed their theory about war (18th -20th June 14 and Thursday 26th June). They progress from brainstorming to a written summary on desk



Figure 64: Written summary of discussion (Thursday 26 June)

**2nd week of workshop with three sessions¹⁶,
Tuesday June 24: Associative preparation of the issue war**

Appropriation pattern: personal theory

Thursday 26 and Friday June 27: Narration and analytic work

Appropriation pattern: doing/applying

**3rd Session, Tuesday 24th June: Associative preparation of the issue war;
Appropriation pattern: personal theory**

[Teacher's summary in video "1Jack report on 1 session-video made 25 Jun 14
IMG_3493"](#)

There was a **gender difference**; boys were interested in fictional animals like Tom and Jerry, or a hyena. The students' concept about war focuses on animals which fight against each other.

4th Session, Thursday, 26th June 2014, 1:50 - 3:30: Narration and analytic work

**From the appropriation pattern of theory to the appropriation pattern of
doing/applying**

Video-interviews with the teacher:

[\(a\) Before 4th session, planning; file: 2week a Jack plan for session 4-26 June 14](#)

[\(b\) After 4th session, report; file: 2week c Jack report session4-26 June 14](#)

1. Section: Students in 3 table groups with tablets write definitions of war

- Students' re-interpretation of war

Students provide to IoE-facilitator their already developed understanding and definition of war with keywords like: war 1, war 2; fighting in different countries: Afghanistan, an African country; difference between fighting and war. Darren contributes a complex definition i.e. 'is there a distinction between war and fighting, if so, what is the distinction?' Jermaine astutely observed that most of boy-oriented games are either based-on or geared towards war thema. Students' visualisations of 'Animals in War' centred on either love (e.g. stags locking horns); fight over scarce resources (e.g. pigeons fighting over chips); or survival (e.g. polar bears resorting to unsuccessfully hunting walruses because global warming has reduced their ability to hunt for fish). It was interesting to observe that female visualisations centred on 'love', and male around 'scarce resources', with both genders over-lapping on 'survival'.

- Widening learning context

Students are widening the context of consideration by integrating among others their knowledge on biology and global warming, countries in war like Nigeria. It is likely that students brought in their knowledge of TV documentary of David Attenborough. This widening is possible and accepted in a school for special needs. In mainstream such "wider learning" can often be inhibited by students trying to meet the teacher's intended learning outcomes i.e. 'What does Sir want me to say?' or geared towards exams i.e. 'will I need this information in my exam?'

Short discuss on war games. IoE facilitator shows a PPT slide of Ninjago (see figure above report 2. part), which leads to a complex discussion of students which widens the context to fictional wars.

- On the way to define war, in groups of three. Procedure with tablets to archive result of writing and get it available for exercise book (xxx see m-scenario 1: [objectifying brainstorming - from ideas to exercise book, 2. Week 4. Session, Thursday, 26th June, section 1\)](#))



Fig. 65 - 70: Valerie uses tablet during working on a definition of war

Group of Terry, Darren, Peter

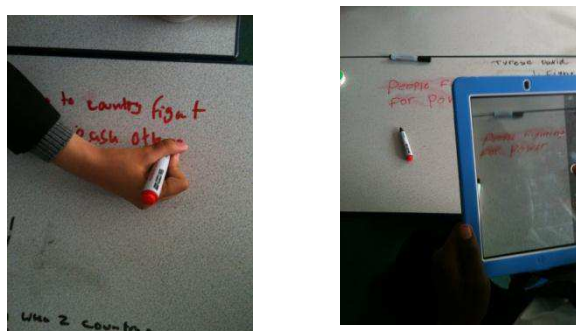


Fig. 71 + 72

In the example above, the tablet of the group is integrated in the procedure of developing, verbalizing and documenting ideas. There is also the option to take photos of the results of an episode of working, see figures 73- 76 below.



- Students' definition of war written in groups of three on their tables

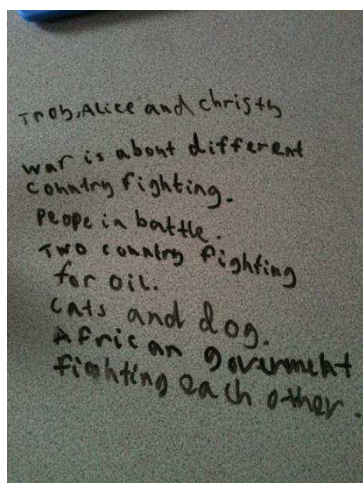
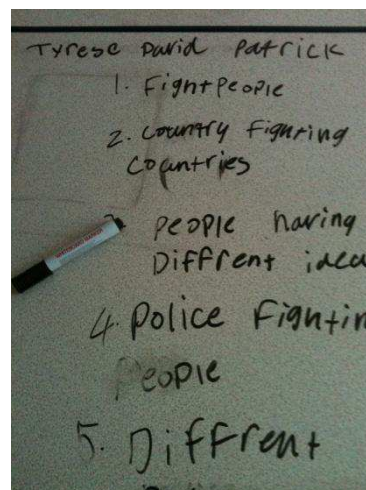


Figure 77 left: Result of "Toby, Annie and Carly": "war is about different country fighting. People in battle. Two country fighting for oil. Cats and dog. African government fighting each other."

Figure 78 right: Result of "Terry, Darren, and Peter": "1. Fight People 2. Country fighting countries 3. People having different ideas 4 Police Fighting People 5. Different

2. Section: IoE-facilitator, the beekeeper - teacher as learner (obuchenie)

The IoE-facilitator presented himself as bee-keeper with typical protective clothing. The intention was to show himself as a learner (obuchenie). Furthermore, he shared his ideas and knowledge about fighting animals and animals in war. Therefore, he showed photos of his grandfather from World War 1 with a dog as mascot on PowerPoint slides on electronic whiteboard. The protective clothing of a bee keeper should demonstrate vulnerability and the role of protection in dealing with bees and their capacity to sting.



Fig 79: Bees in hive Figure: Dog as mascot for German soldiers

3. Section: Teacher shows the story of Lizzy, the elephant, BBC podcast - teacher as learner, widening of the school as learning context, situated learning

Leading question was how animals can be involved in wars? Teacher presented the story of 'Lizzy the elephant'. Lizzy was used by a scrap metal dealer to transport scrap metal for recycling towards the war effort when all horses were commandeered.

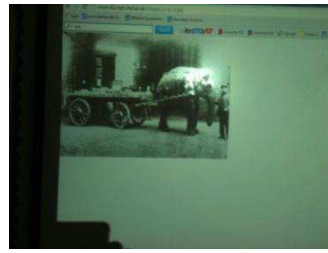


Fig 80 + 81: In a circle around tablet and his mobile teacher tells the story of Lizzy, the elephant.

The teacher told the story of 'Lizzy the Elephant' who pulled a cart because all horses were commandeered for war. Afterwards three groups with three students worked together at one common table. They write on their table with a wipe-clean marker pen. The group's tablet is available on the desk.

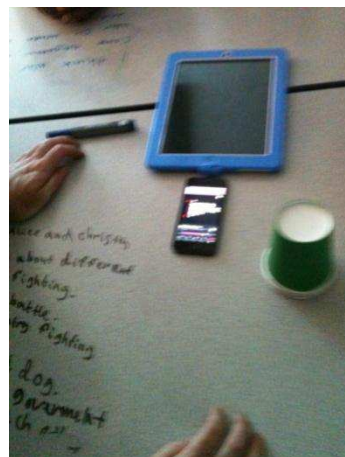


Fig 82: In a circle around tablet and his mobile teacher tells the story of Lizzy, the elephant.

The teacher told the story of 'Lizzy the Elephant' who pulled a cart because all horses were commandeered for war. Afterwards three groups with three students worked together at one common table. They write on their table with a wipe-clean marker pen. The group's tablet is available on the desk.

Situated learning in classroom

It was a rather cosy situation when teacher and students in a circle around the smartphone (see figure below, 3rd photo from left) concentrated on the story which the teacher brought into school. This situation was not defined and restricted by learning outcomes in the above sense "Will I need this information in my exam?" but by the motivation of students to get a deeper view on what the teacher has learned about an concrete animal in war. It was a situation in which students learned from a learner (obuchenie and situated learning)

Structuring and widening of the learning context

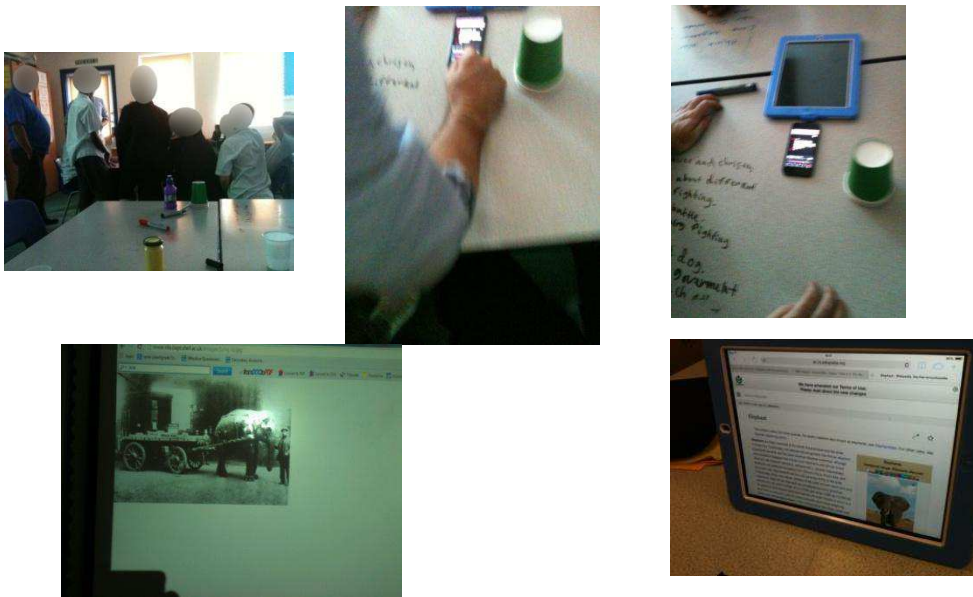


Fig. 83 - 87

Mobile devices - tablet and teacher's mobile are a means to structure the process of approach the story *my favourite animal* by widening school context to internet. The teacher as learner has already gave access to his story and the documentary on BBC about an Elephant, which is not available in school by tablet. Students can use the teacher's mobile phone. (See: m-scenario 9)

4. Section: Summary of discussion and analytic tool, the *circle animals in war*, writing in 3 table groups, Thursday June 27th, 2014

Development of expertise

In the space of one group discussion students had progressed from talking as 'naïve experts of Google Images' to working animals in war – from two pigeons fighting over chips in the high street to pigeons carrying messages between troops. Students then proceeded to transfer their knowledge from visualisation to verbalisation on their desk notes.

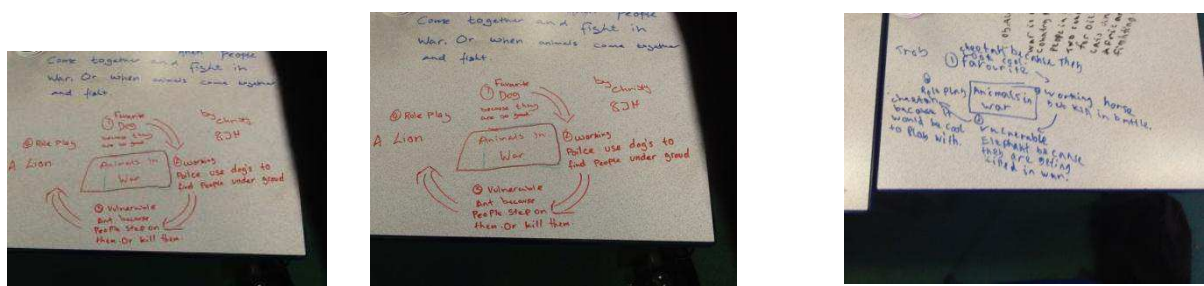


Fig 88 - 90: Students writing summary on desk - from visualisation to verbalisation

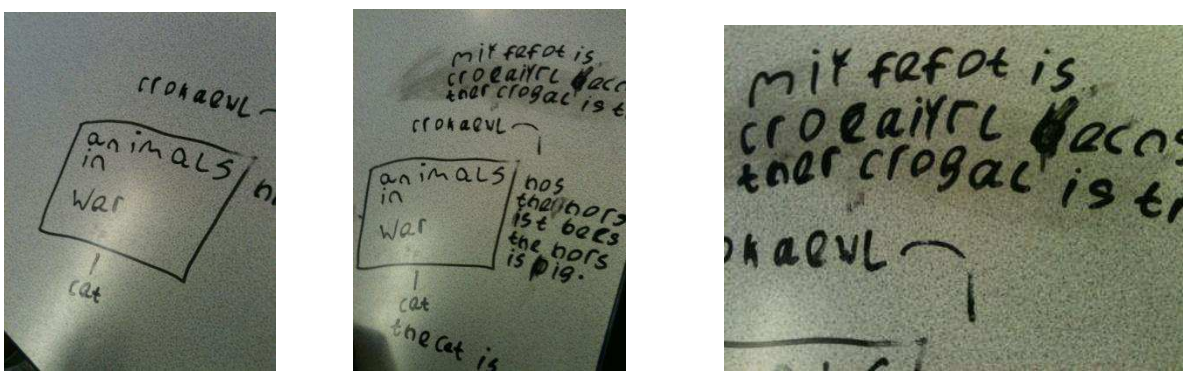


Fig 91 - 93: Crocodile

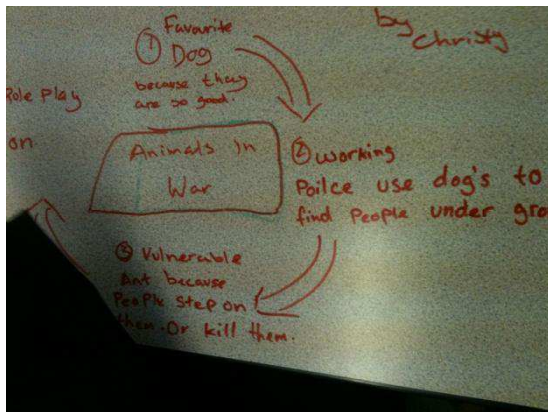
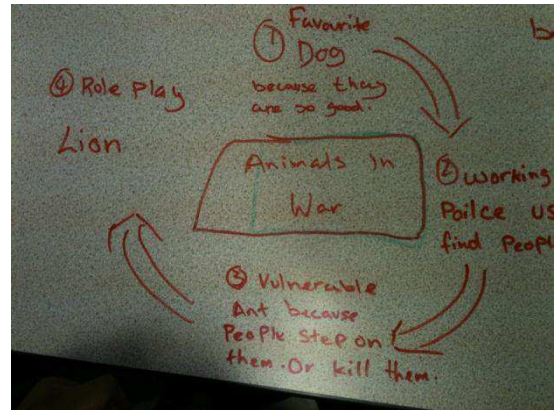


Fig 94 - 95:

Carly = dog, police dog, and lion

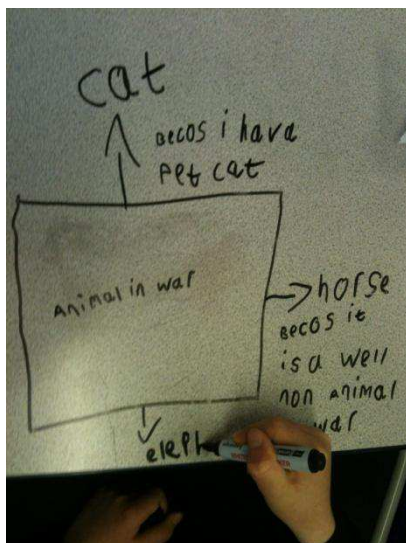


Figure 96: Peter = cat, horse, and elephant

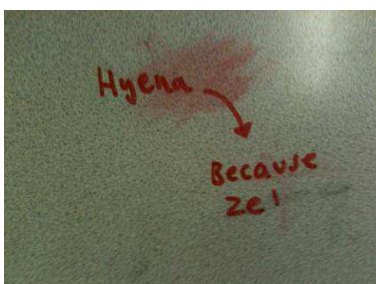
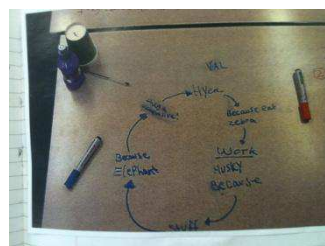


Figure.97: Valerie at the beginning of working with her circle: Hyena. She adds Husky and Elephant

Annie proposes how to summarize the *Circle Animal in War*

In the rationale of the *Circle Animal in War* Annie proposed a role play (email of teacher to loe-facilitator): "Annie came up with an excellent idea - much in the spirit of this project - which we film each other role playing an animal in war and then email these to you for your feedback. What do you think? I would really like to nurture and develop her initiative."

Teacher's summary of 4. Session

"I must say that yesterday's ongoing project went extremely well. I am very enthusiastic about the learning outcomes, and the students have been very positive about their participation."

5. Session: Story writing about a day of an animal in war (1st narration): *My favourite animal*, Friday, 27th June 2014. Appropriation pattern: doing/applying

Narration is the leading form of the process of re-interpretation what is war about.
Narration is:

- embedded in brainstorming (1st and 2nd week of workshop),
- accompanied by the analytic tool of the circle 'animal in war' (2nd week of workshop, see above 4. Section: Summary of discussion and analytic tool, the *circle animals in war*, writing in 3 table groups, Thursday June 27th, 2014),
- supported by investigation of Internet and media of mass communication (e.g. documentary) as sources mainly for images (see figure above section 3, Thursday 26 June 2014)
- accompanied by taking photos with tablet for documenting the process of writing the story (see m-scenario 1 in 2nd week and report part 4).

Altogether there were three timeslots with three different narrations, the 1st narration above summarizes the associative approach to what is war about. The 2nd narration is after the excursion in the 3rd week of the project: *report of the trip*. The first narration focuses on the students' favourite animal, the 2nd narration is based on a diary of the excursion to Horse Guard's Parade and its Cavalry Museum in Central London, further to the Animals in War Memorial in Hyde Park. The 3rd narration has the form of a report about the workshop to the school in the main hall of the school.

Summary of the teacher about animal-in-war story (1st narrative)

"Today we continued working on animals in war - writing a story about the day in the life of one animal in war. Photos show how students utilised mobile technology on their own accord."

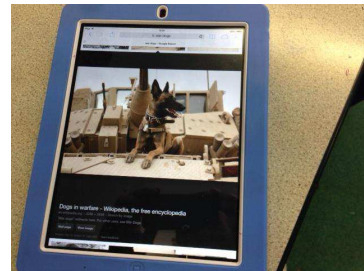


Figure 98 - 100: Process of developing the story with tablet for searching images in the Internet and printed images, which are glued in student's exercise book

3rd week of workshop with 3 sessions

Appropriation pattern: from doing/applying to exploration

Wednesday, July 2nd: Finalizing the 1st. narration

Thursday July 3rd, Friday July 4th:

Educational visit (excursion) and report (diary)

6. Session, Wednesday 2nd July 2014: Finalizing the story (1st narration) about a day of an animal in war. Appropriation pattern: doing/applying

Students write their stories. Each writes by hand a shorter or longer text into her or his exercise books and glues self-searched and printed photos from the internet and, partly, draws images in their exercise books. During writing students have the group tablet available on desk.

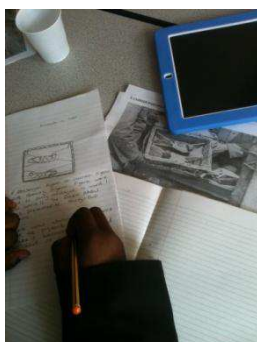
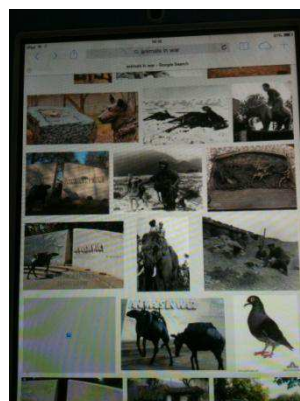


Fig 101 - 102

They access the internet by the tablet where students search and check several sources for images.

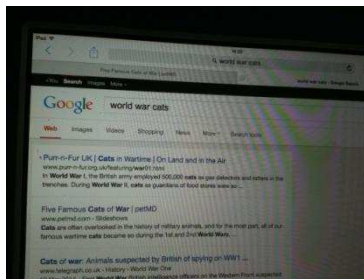
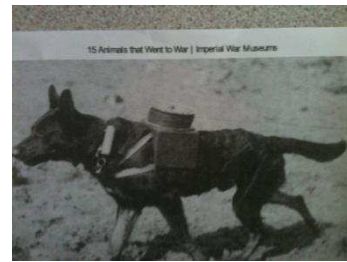


Fig 103 - 105

Exercise book as interface for the narrative

Aim is to write (handwriting plus printed images) a story about animals in war into the exercise book.

Toby's story in his exercise book: "man and dog" "had to jump out of a plane"
Text begins with the traditional opener of a fairy tale: "Once upon the time"

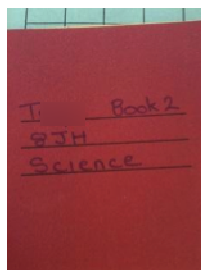
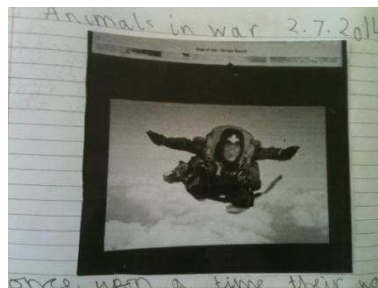
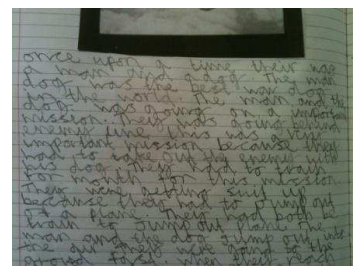


Fig 106 - 108

Jermaine's story in his exercise book: "tiger"

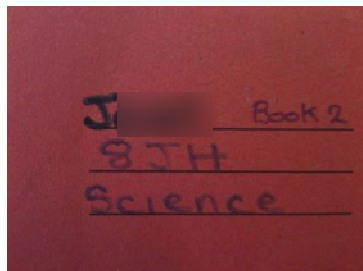
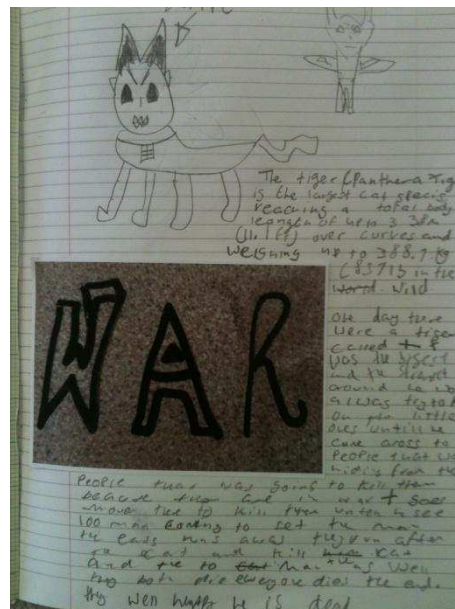
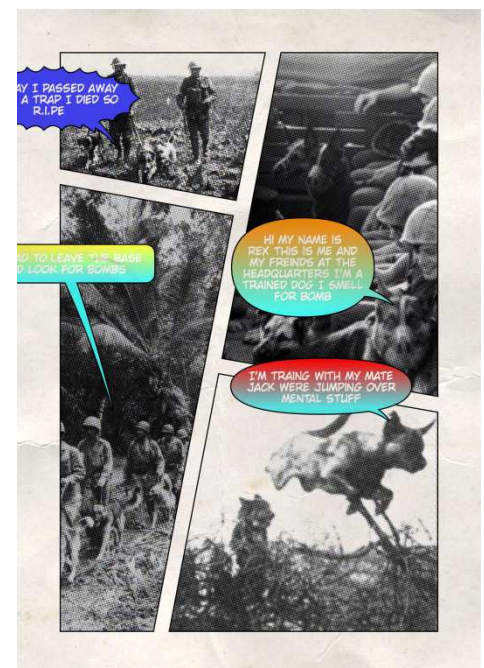


Fig 109 -111

In his personal workspace (see section 2 of the report) Jermaine developed his writing style in the form of creating a comic strip (figure right above). Figure left above shows his hand written story, which is in the same multimodal manner like the stories of the other

students.

Darren's story in his exercise book: "Naval Mascot", cat

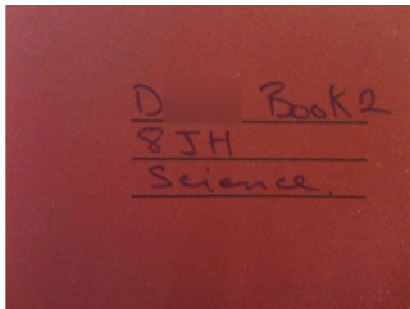
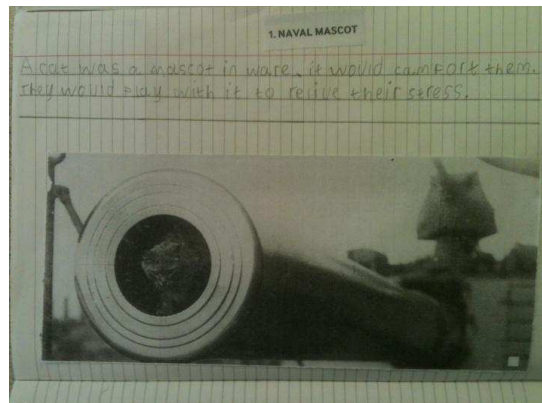


Fig 112 - 113

Peter's story in his exercise book: "Animal Welfare on the Western Front"

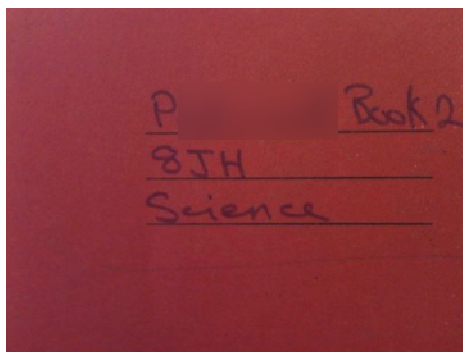
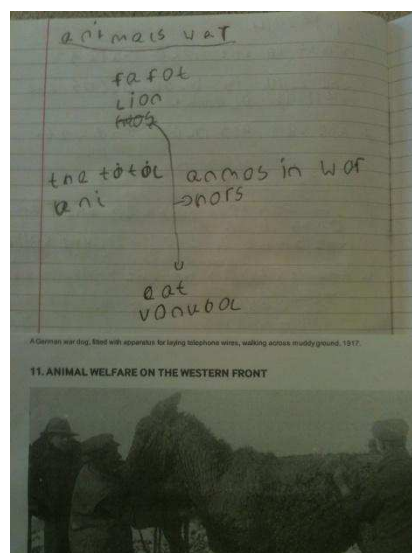
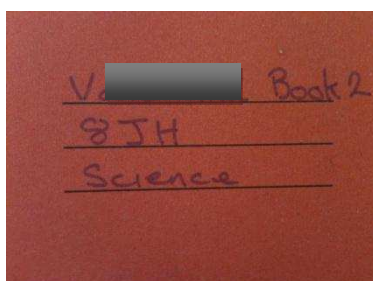
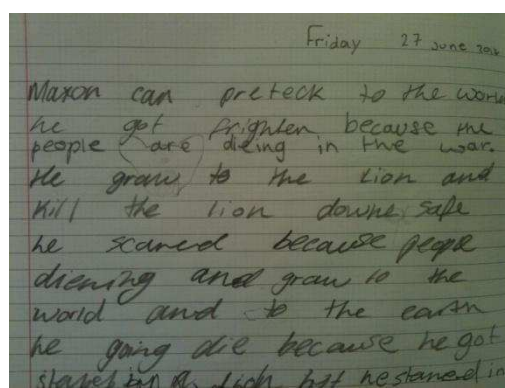


Fig 114 -115

Valerie's story in her exercise book: "Maxon can protect to the world"



the young one because he got
 stuck by a high but he landed in
 a place and killed the
 people and safe the
 war and safe the
 Maxon is a great animal
 he can defend the sea
 war and he will safe
 the people and take
 Carver from his people
 when he pretends to
 person who works for
 and he fight back in
 the war and safe save
 the world.
 The end!

Fig 116-118

Annie's story in her exercise book

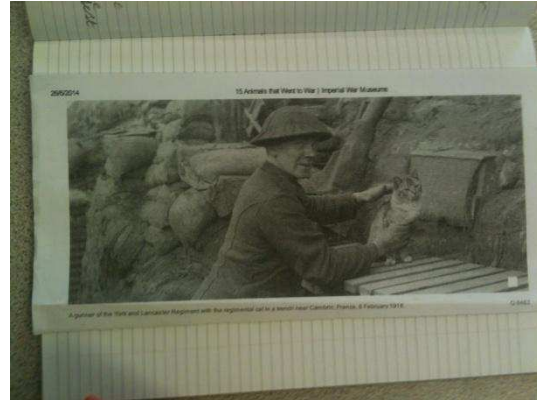
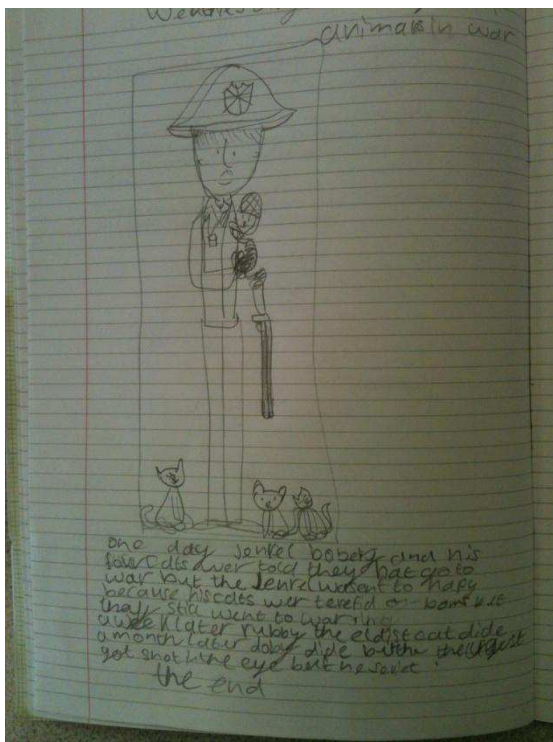
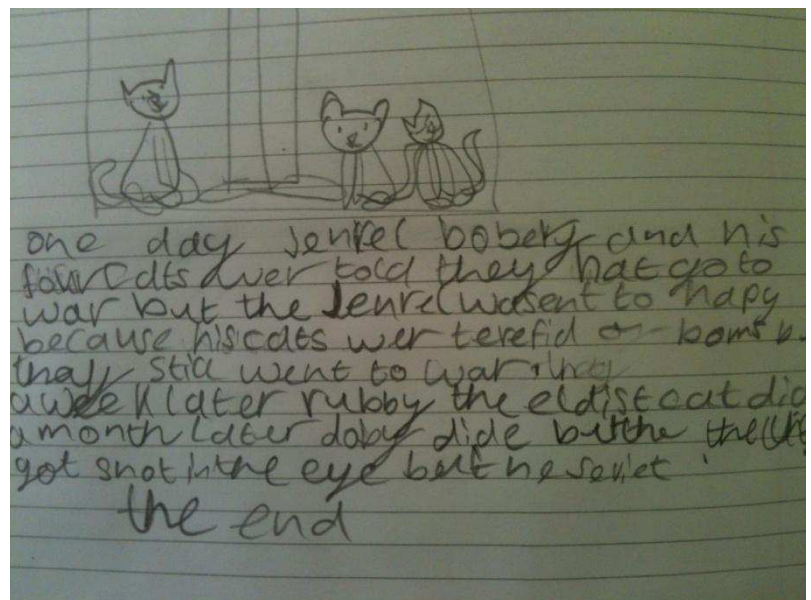


Fig 119 - 122

3rd week of workshop with 3 sessions
Appropriation pattern: from doing/applying to exploration
Wednesday, July 2nd: Finalizing the 1st. narration
Thursday July 3rd, Friday July 4th:
Educational visit (excursion) and report (diary)

**7. Session, Thursday, July 3rd, 2014: Educational visit (excursion) to The Household Cavalry Museum and Animals in War memorial¹⁷,
 Appropriation pattern: exploration**

Video-Interview with teacher after the educational visit; file: 3week b Jack report
 Excursion 3July

Teacher's timetable which worked with a time shift of around half an hour

9:00 am Depart via minibus to The Household Cavalry Museum
 (<http://www.householdcavalrymuseum.co.uk/>)

10:30 Arrive at The Household Cavalry Museum in Whitehall

11:00 am Watch the Changing of the Guards at the Cavalry museum/Horse Guard's
 Parade (<http://www.changing-the-guard.com/other-ceremonial-events.html>)

1:00 pm Packed lunch picnic in Hyde Park - next to the site of the Hyde Park bombings
 (<http://www.telegraph.co.uk/news/uknews/terrorism-in-the-uk/10652155/Hyde-Park-IRA-bombing-1982-bombing-was-one-of-the-worst-mainland-atrocities.html>)

1:45 pm Visit the Animals in War memorial in Hyde Park (<http://www.animalsinwar.org.uk/>)

2:00 pm Return to school

(1.) With school van to Whitehall, horse guard;

In the van students got a worksheet which should help to organize their experiences and to write a report about the excursion. This worksheet connected also the preparatory work with the *Circle Animals in War* and the story about my animal (narration 1) with the students' work after the excursion (narration 2).

The worksheet is titled "Animals in War" and has a date "3.7.2014" written in the top right corner. It is divided into three numbered sections, each with a set of icons and a prompt:

- Section 1:** Prompt: "1. Explain what's your favourite animal." Icons include a cat, a dog, a heart, and a thumbs up. Handwritten text: "My favourite animal is a cat."
- Section 2:** Prompt: "2. Explain how an animal works in war." Icons include a cat, a dog, a person, and a tank. Handwritten text: "An animal can work because it is trained to kill and take out enemies."
- Section 3:** Prompt: "3. Explain how an animal is not safe in war." Icons include a cat, a dog, a person, and a tank. This section is mostly blank.

Fig 123

(2.) Students walk through Whitehall and investigate environment e.g. by coincidence an until unknown memorial



Students took photos with their three available tablets. One student goes closer to see and take photo of the embossment at the monument.



Figures 124 -127 above : Photos taken by teaching team

Some students took a photo from another memorial, glued it in their diary of the educational visit (report of the excursion, narration 2) and commented the memorial as "for high ranking officers".

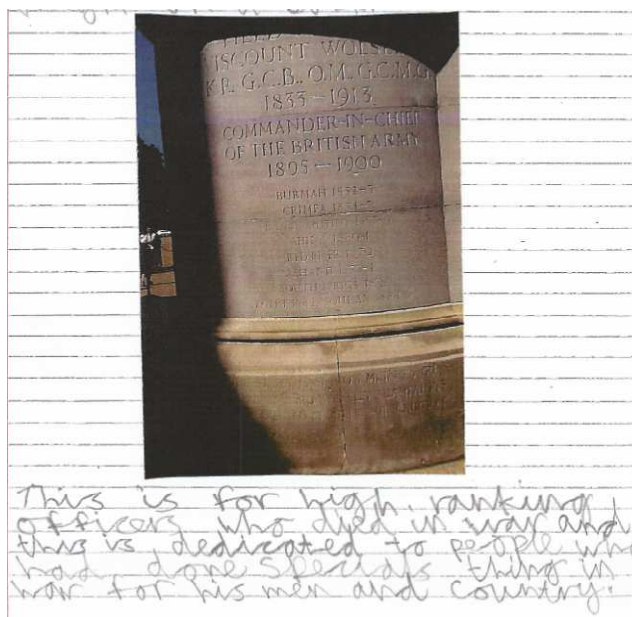


Fig 129

Figure 128 : Extract from students report of the excursion in their exercise book.

(3.) Changing of the Horse Guard with mounted police, tourist event and investigation

Students referred in their diaries to the horse guard and to the mounted police during the horse guard's parade. Photos of Horse Guard refer to the issue of war. By comments and also by sequence of photos some diaries deal with the issue of working animals and vulnerable animals. This relation was prepared by the circle of animals in war.

Students take photos of the mounted police during the parade in a typical tourist manner with the focus on self-representation like: me and my friends on tour.

Students' modes of appropriation and context aware knowledge about features of animals described in part 1 of the report (*Special Needs school's PIVOTS sub-levels for students to achieve*)

Students applied (a) the *Circle Animals in War* which enhances a verbalized form of awareness about animals activities for working in the context of a parade or in war. But the educational visit, so the terminology of the teacher, (b) is also a tourist event, which suggests e.g. to take photos in a tourist perspective e.g. self-representation at prominent sites. For the excursion students received a worksheet and the three available tablets which enhances a school like mode of appropriation (c). They carried their exercise books with them. These three tools enhanced an active participation to and the investigation of the two different sites (parade, memorial). Being in a move on the site of the Horse Guard parade the handling of worksheet, exercise book and tablet book was rather difficult for the students.

(a) Applying the *Circle Animals in War* which enhances awareness about horses in different contexts

Excerpts of students diary below indicate that students are aware of what was prepared about animals in war in school. Images in their workbook show two working animals in relation, parading Horse Guard (left photo) and horse in war (right photo).

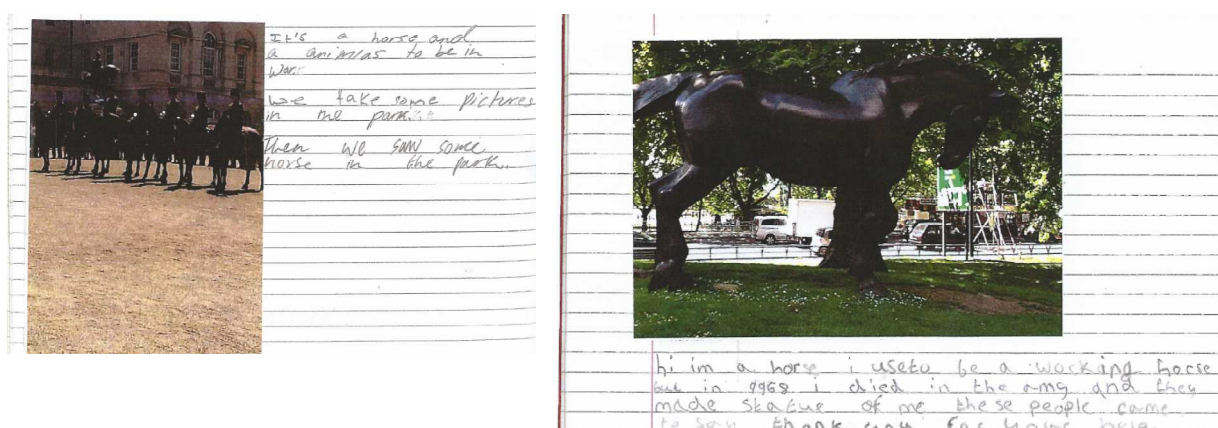


Fig 130 - 131

Beside the photo of the horse guard and its comment (left) follows a photo with the metal sculpture of a horse at the Animals in War Memorial in Hyde Park.

Another diary shows the same relation between working horses on the two different sites

of excursion, horse guard and animals in War Memorial. The analytic *Circle Animals in War* opened the students view on working horses during a parade or in war. The circle enhances the context awareness which is prepared by the offering of the memorial.

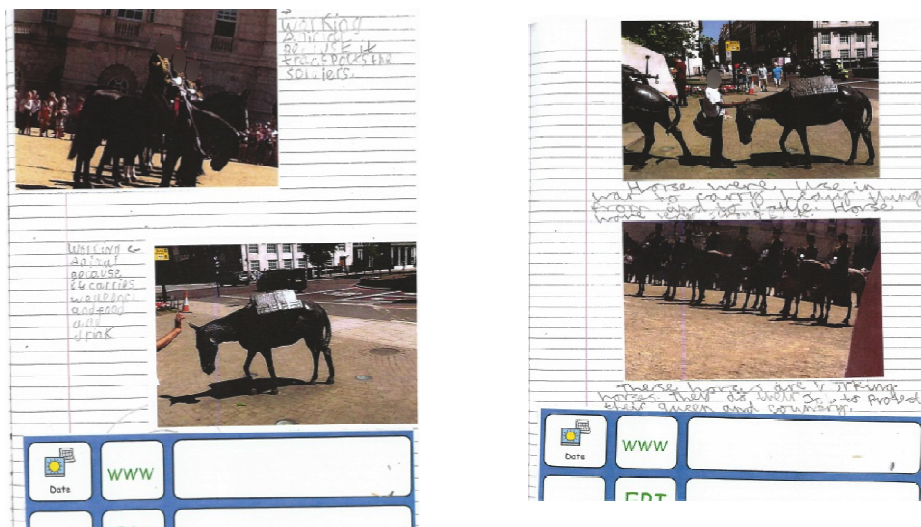


Fig 132 - 133

(b) Perspective of a tourist, an awareness of everyday life

But students also use the educational visit like other tourist and take photos on the excursion, e.g. self representation with police horse.

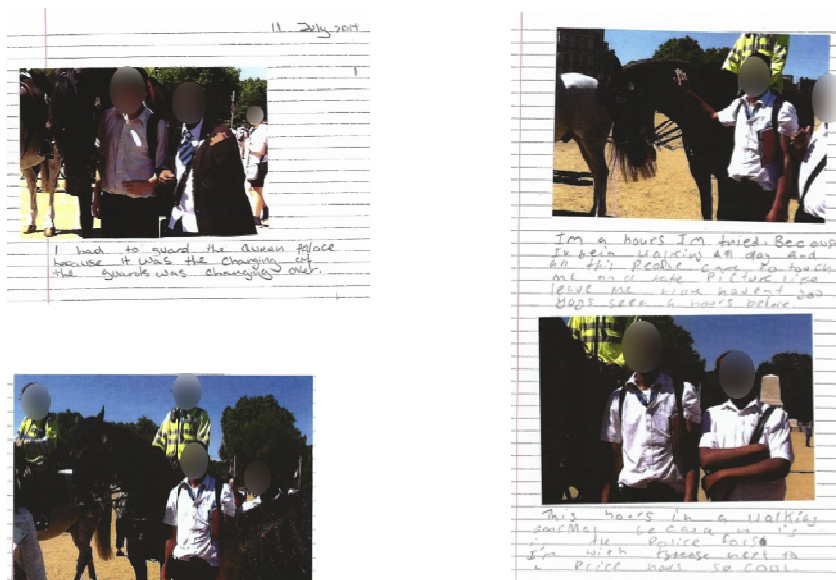


Fig 134 - 136

In the style of tourist photos students take also photos from police horses which are nearby the horse guard parade to protect them.

(c) Students' worksheet, exercise book and tablets during Horse Guard parade

Students use experienced their worksheet, exercise book and tablets, but there a handling difficulties during wandering around. A photos in a diary shows the normality of using worksheet, exercise book and tablet.

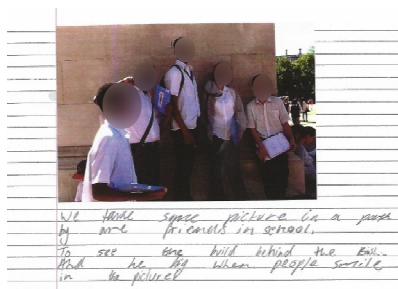


Fig 137

Students are in the routine of everyday life to take photos of a tourist event. They use tablets and the teacher's mobile (centre below). They also check their photos.



Fig 138 - 140

(4.) Cavalry Museum, investigation, self-representation, discussions and summary with worksheet, exercise book and tablets

After the parade of the Horse Guard students visited the Household Cavalry Museum which is part of the Horse Guard building. Student got an introduction by a museum guide, went through the small exhibition and finally the museum guide invited the students to dress up as soldiers with provided historic and modern uniform elements. During the visit students used the tablets and the teacher's mobile for taking photos.



Fig 141 - 143

Investigation of the museum with tablet (left) and teacher's mobile (right) appears in the students' diary.

There are also short discussions of students with the guide of the museum (left) and an member of the Horse guard (centre) and the teacher. This indicates that students use as normal the professional expertise of the museum's guide, officer of the Horse Guard and of their teacher.



Fig 144 - 146

Self representation with uniforms provided by the museum

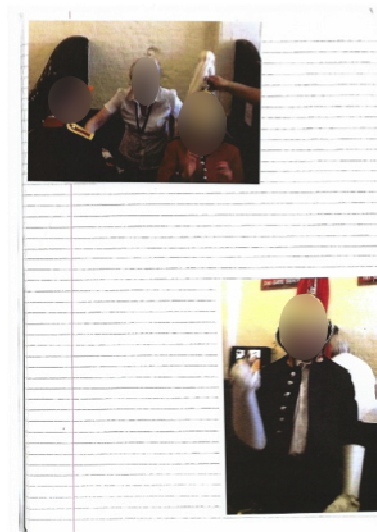


Fig 147 - 148

Common summary of the visit through the museum with work sheet, exercise books and tablets. Students are experienced in this communicative form of reflection. They use their expertise to consider, discuss and summarize the visit through the museum.

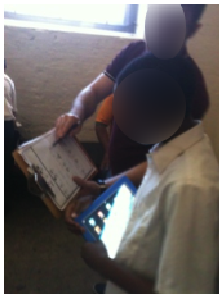
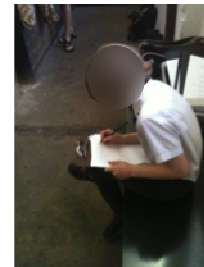


Fig 149 - 151

(5.) With school van to Animals in War Memorial in Hyde Park, picnic and investigation of the memorial

After quite a long searching for a parking lot all participants had a picnic at Animals in War Memorial



Fig 152 - 153

During picnic some students played digital games on tablets (photos below of a member of

the teachers team). They widen the relaxing part the school event by playing in the manner of their everyday life.



Fig 154 - 156

After the picnic students and teachers investigate the memorial, work cooperatively in their exercise book and meet for a common discussion.



Fig 157 - 160

Investigation of memorial, reading of and listening to the self written stories about favorite animal in the workbook

In the diary of the excursion among others the following three aspect of becoming aware of animals in war became visible:

- Specific features of animals, example of the dog below;
- Interrelation of animals at different sites
- Empathy for a vulnerable animal.

Specific features of a dog

In the exercise book with the diary of the excursion appear the following images and

comments:

A "working dog" named "Jake" says what he has to work in war: "I had to walk up an down with a telephone wire because I was small and faster and good sense of smell". This statement corresponds to the intended learning outcomes in science (see part 1 of report):

Special Needs school's PIVATS sub-levels for students to achieve:

- Pupil can identify features of animals appropriate to their environments
- Pupil can explain simple changes in living things eg can suggest reasons why an animal is dying
- Pupil can explain changes in living things which result from environmental changes eg. explain why cats moult in the summer.

Like already mentioned above students applied the *Circle Animals in War* to find the specificities of animals like these of a dog named "Jake".

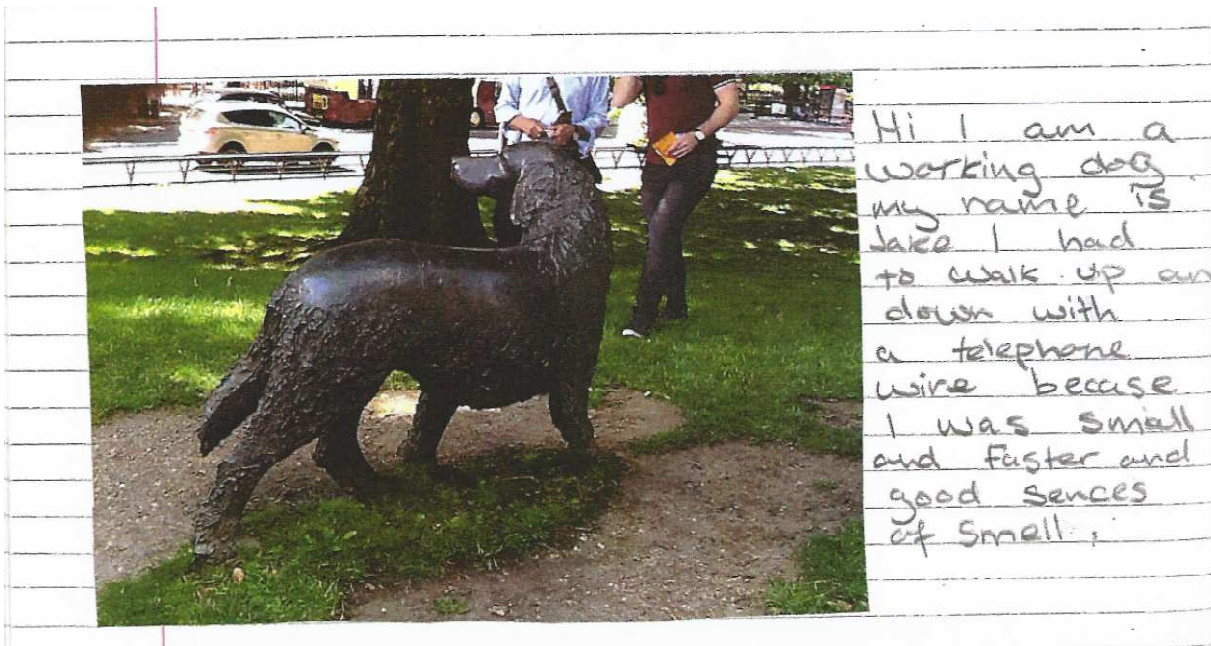


Fig 161

Interrelation of animals at different sites of the excursion (context awareness)

Further more in their diaries students compare horses at the Horse Guard parade and horses as sculptures at the Animal in War Memorial.

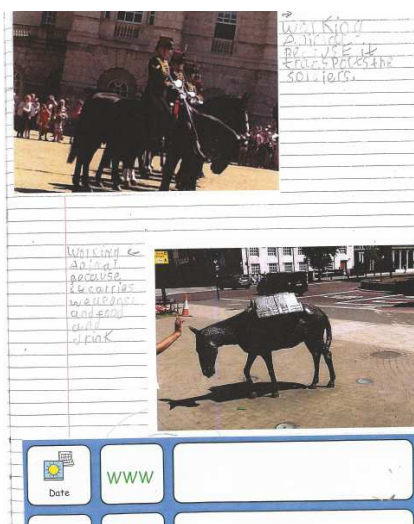
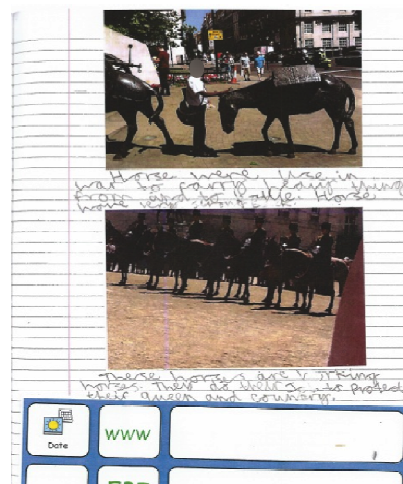


Fig 162 -163

Empathy for a vulnerable animal

Comments to the following photos of a horse at the Animals in War Memorial in the excursion diaries (2. narration) indicate that students developed empathy for the vulnerable animal.

... "this is a horse carrying object. Toby was stroking ... stake."

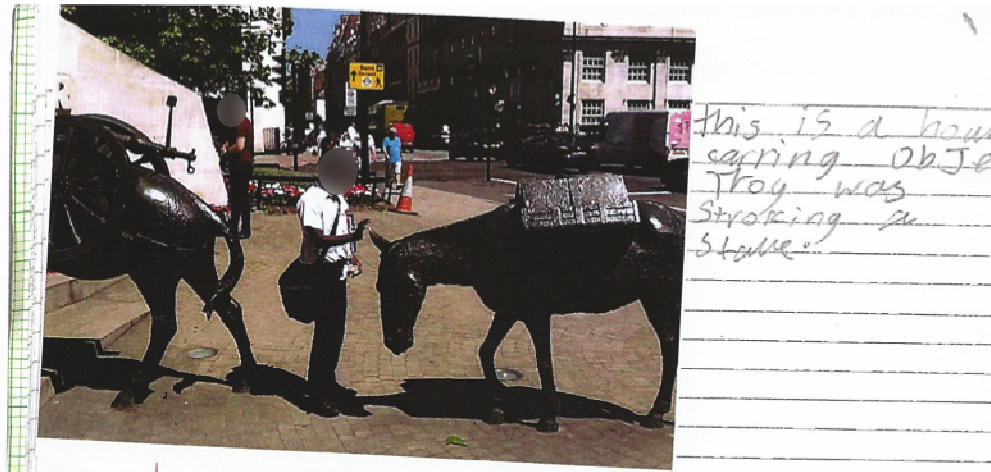
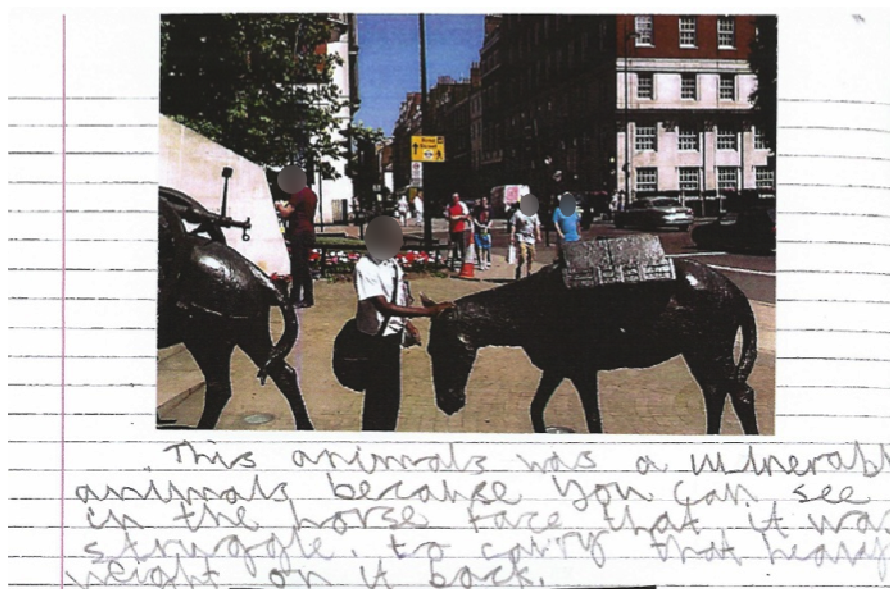


Fig 164

A very similar photo describes the horse as "vulnerable". "This animal was a vulnerable animal because you can see in the horse face that it was struggle, to carry that heavy weight in it back."





hi im a horse i used to be a working horse
but in 1968 i died in the ring and they
made statue of me these people came
to say thank you for your help.

Fig 165 - 166

Afterwards the excursion group goes with school van to school, where the school activities finish.

8. Session: Processing the experiences of the educational visit, Friday July 4

Teacher's summary: "This week the students continued their 'diary' - in that they glued in their photos from the trip and then began to explain the photos from 4 perspectives. They chose either

- 'what happened',
- a 'working animal',
- a 'vulnerable animal' or
- 'role playing an animal in text'.

There was some interesting work that reflects a much deeper level of understanding."

Video-interview with the teacher about the narration before the excursion about 'my favorite animal' and after the excursion in a more abstract way a story about 'animals in war', file: 3week e Jack summary 2 narrations 'animals in war'-3July14

Extracts from the students' report of the excursion

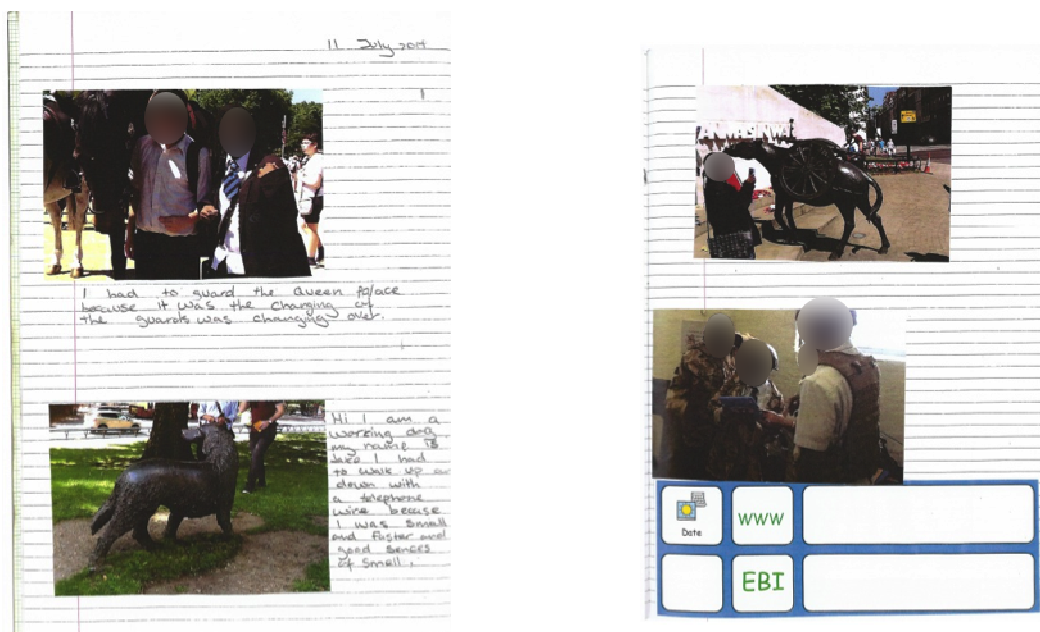


Figure 167 left: During the Changing of the Guard (self-representation in the style of a holiday photo diary) and at the memorial for animals in war (target oriented view on a statue of a dog as part of the memorial).

Figure 168 right: Student takes photo of a horse or donkey at the animals in War Memorial. Below is a photo of students at the Household Cavalry Museum, where the students could dress up with uniforms of the museum. On the tablet boys watch the photos of the groups self-representation.

Jermaine's reflection on the 'Animals in War' trip, created in Halftone2 on the iPad Produced in 4th week, sessions 9 and 10

Jermaine insisted to go his own way to produce his diary in the manner of a comic for which he used a specific software (Halftone2). **Jermaine works as expert in software for creating his mode of writing. Transferring his software expertise from everyday life into school he widens dramatically his learning context inside of the school.**

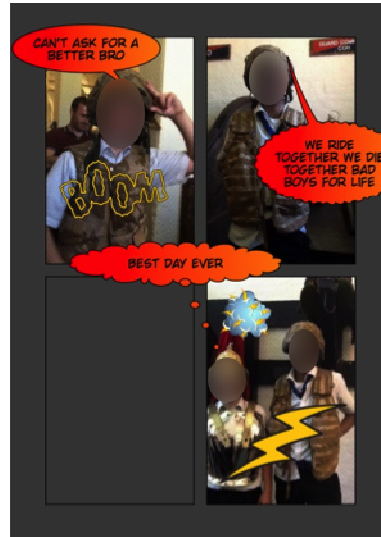


Fig 169

**4th week of workshop with 2 sessions
Thursday 17th July and Friday 18th July 2014
Reflection and further planning with peer assessment
and student-led collaborative learning
Appropriation pattern: Reflection**

9. Session, Thursday 17th July 2014: Peer assessment

Appropriation pattern: Reflection

Thursday's session involves peer assessment where the pupils will fill in the marking slip - WWW (what went well) EBI (even bet if). The students will take control of the lesson, assign each other into groups and roles, and then compile the final presentation as they see fit and salient. Teachers (Kath, Feze and Jack) will be merely observers. (Jack) I'm not sure how this will go but I have every confidence in them that they will work it out.

10. Session Friday 18th July, 2014: Student-led collaborative Learning

Appropriation pattern: Reflection

Students were introduced to their intended learning outcome of presenting their work to the school following the 'Animals in War' circle, and that this was the only role that the teaching staff would play for thenceforth.

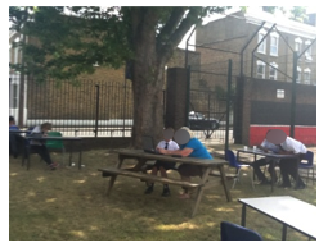


Fig 170 - 171: Students mobile learning on a hot sunny day.

The classroom was too hot so we moved the classroom to underneath the shade of the tree. Carly – the class nominated group leader – assigned students in pairs to create presentations on our four strands of 'Animals in War'. Students are leading their own learning in pairs – Valerie on the iPad (back left), Annie on the iPhone (centre left), Darren on the laptop (centre right), Terry and Peter on the iPad (right)

5th week of workshop with 2 session
Wednesday, July 24, Thursday, July 25th 2014
Preparing a presentation about Animals in War and
presenting with PowerPoint to the school public
Appropriation pattern: Reflection

11. Session, Wednesday 23rd July 2014: Preparing a presentation about Animals in War

Appropriation pattern: Reflection

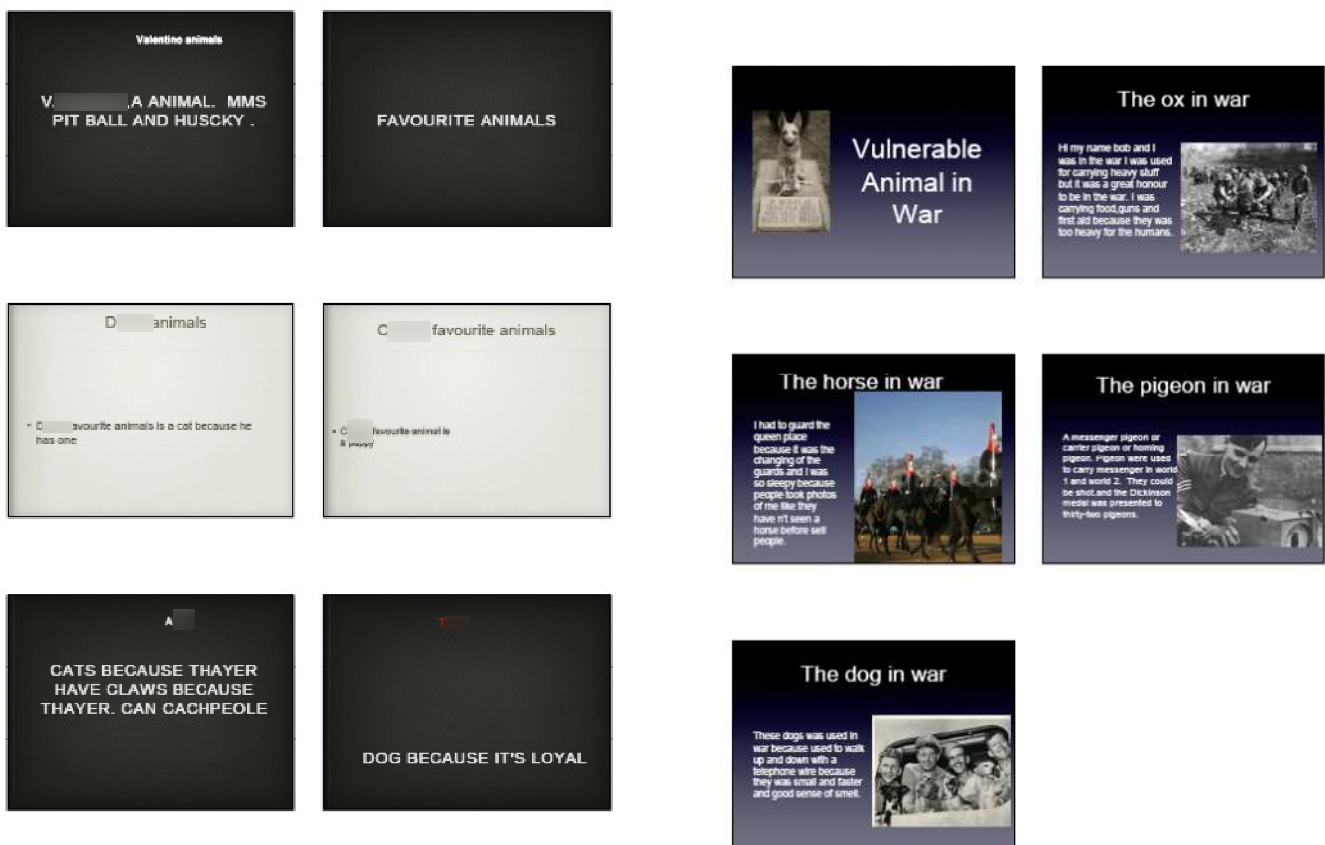
12. Session, Thursday, 25th July 2014: Presentation to school public with PowerPoint to the school public

Appropriation pattern: Reflection

In the final week of workshop, the 5th week, students produced PowerPoint slides out of the material which they had already produced during the project. They presented their slides under the following four headlines:

- Favourite Animals,
- Vulnerable Animal in War,
- What we did on,
- What we enjoyed about our trip.

Students' presentations: "Favourite Animals" (left) and "Vulnerable Animal in War" (right)



The issues "Favourite Animals" and "Vulnerable animal in War" were considered in the first and the second narration (2. and 3rd week of workshop) by means of the *Circle Animals in War*. Students wrote their texts at first on their desks and than in their exercise books. In both narrations students, certainly not all of them, mentioned and shortly described interrelations of the three types of animals: my favourite one, working animals, vulnerable animals. The two series of slides above don't show such interrelations. In contrast, in the second week of project Valerie introduced the hyena as her favourite animals and set it into relation with zebra, husky and elephant. In this time Valerie expressed in form of a text a more complex reflection.

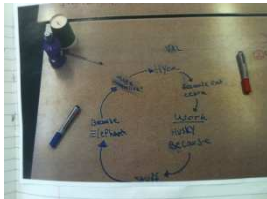


Figure 174: Valerie's Circle of Animals in War, see also above ???

The five slides on "Vulnerable Animals in War" deliver probably quite a lot of information which was unknown to the school audience. The opener in form of a memorial and tomb for a dog is convincing for the issue war. Ox, horse, pigeon and dog were object of the previous consideration for the first and the second narration. But in contrast, mainly to the first narration with the Circle of Animals in War, theses final slides make no difference between working animals and vulnerable animals. All four types of animals in war are classified under "Vulnerable animal in War". But **the category me as animal / role play of the Circle appears in the slides about ox and horse.**

About the ox: "Hi my name Bob and I was in the war I was used for carrying heavy stuff but it was a great honour to be in the war. I was carrying food, guns and first aid because they was too heavy for the humans".

About the horse: " I had to guard the queen place because it was the changing of the guards and I was so sleepy because people took photos of me like they have n't seen a horse before sell people."

Summary of the students' re-interpretation of war on the slides

The trend of these slides about animals in war is to avoid visible war victims but fits to the impression that workshop and especially the excursion / educational visit were really enjoyable. There are no photos of the horror of a war. Exception are the slides with the dog's memorial / tomb and, in the parts below "What we did on", the opener with a photo of the memorial Animals in War and the slide "Sad moments" on which students present themselves as mourning at the memorial Animals in War. They wrote: " It's sad you see all animals that there in war and all the hard work they had to be doing so it's better and just have a quiet time".

This text is in line with the sensitive observation and related photos from the second narration in exercise book with a student who touches empathetically the state of a horse or donkey at the Animals in War Memorial. A similar photo is part of the slides "What we enjoyed about are [our] trip". There Toby enhances "I liked the museum and I enjoyed learning about the army".

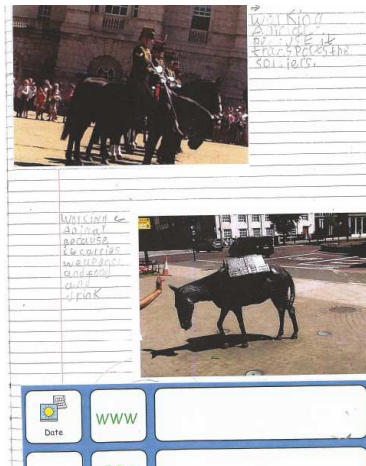
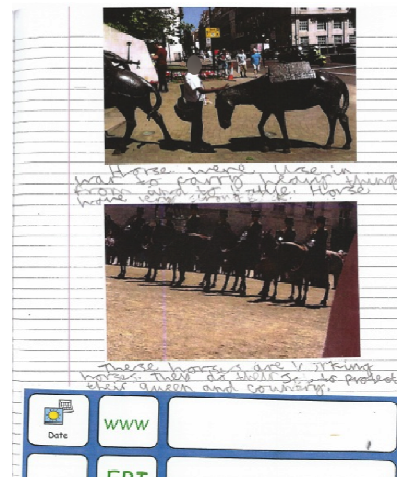


Fig 175 - 176

Students' presentation: "What we did on"

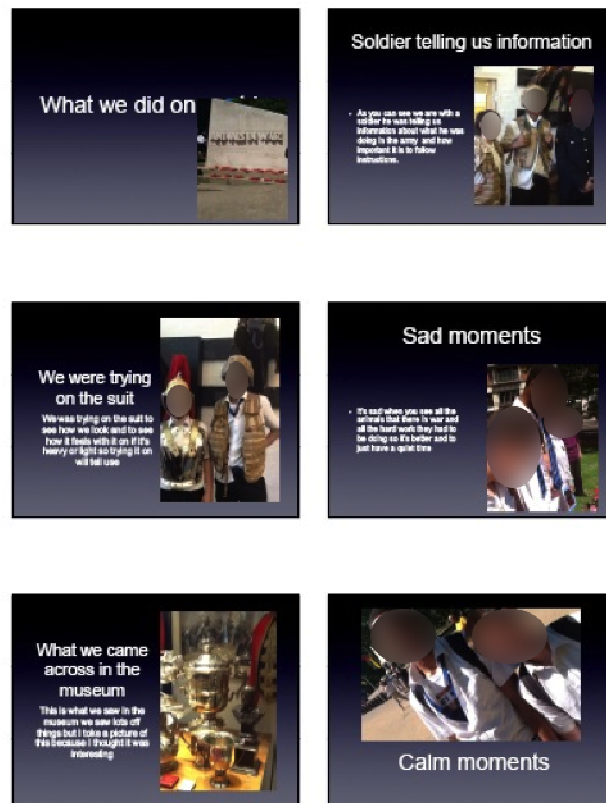


Fig 177

Two of the six slides "What we did on" refer to the Animals in War Memorial (no 1 and 4: "Sad moments") and three on The Household Cavalry Museum: "Soldier telling us information", "We were trying to on to suit", "What we came across in the museum". One photo is explicitly on the entraining and relaxing side of the excursion: "Calm moments".

Students' presentation: "What we enjoyed about our trip"

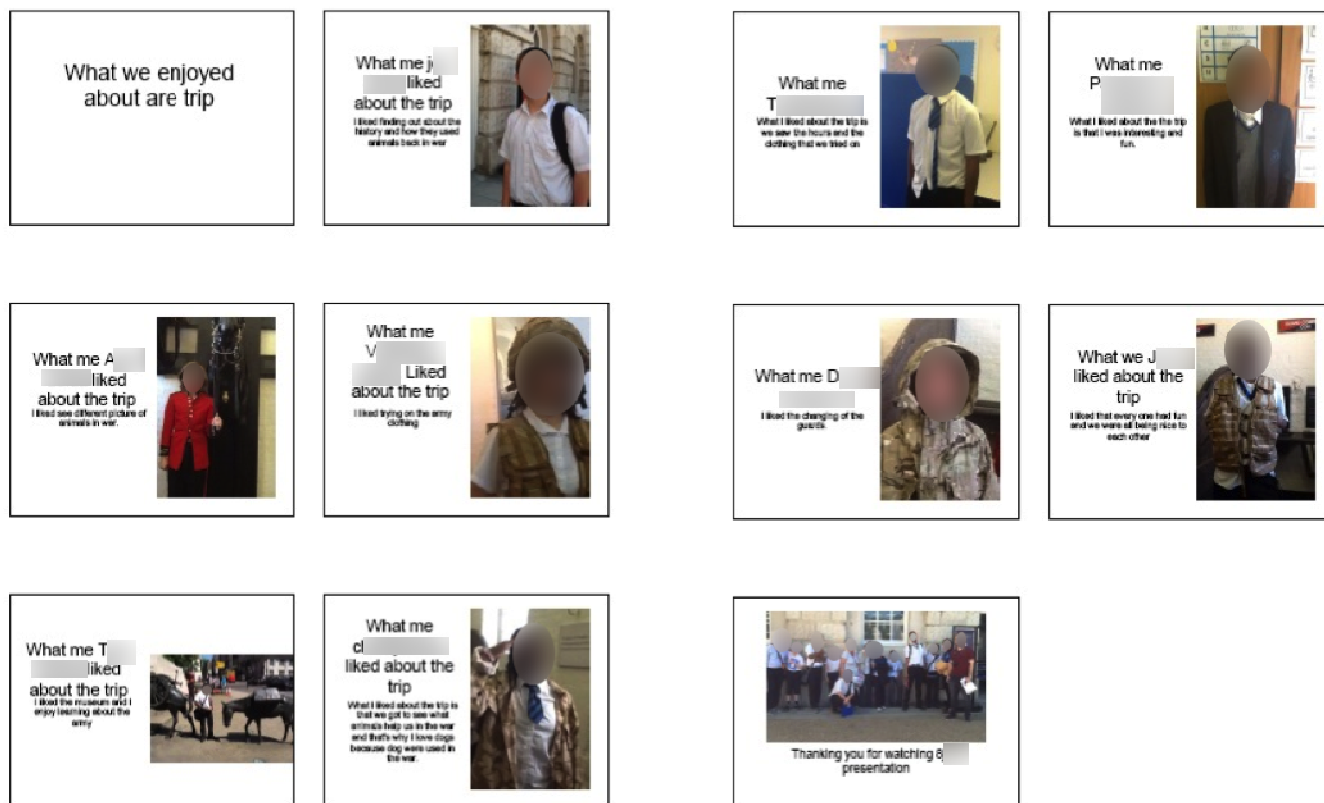


Fig. 178 - 179

The photos of all the slides in the category "What we enjoyed about our trip" are on positive self-representation. They refer to everyday life and the typical way of older children or young people on an entraining tour. Normal life delivers their dominant evaluative pattern.

Four students show themselves without and five ones with the uniform elements they dressed up at the Household Cavalry Museum. Students give the following types of reasons for liking the excursion / educational visit, which they name "trip":

- About entertaining

Entertaining as reason for the excursion relates primarily to tourist attitude and everyday life.

Valerie: "I liked trying on the army clothing"

Terry: "What I liked about the trip is we saw the hours [probably: horses] and the clothing that we tried on"

Peter: "What I liked about the trip is that I was interesting and fun."

Jermaine: "I liked that every one had fun and we were all being nice to each other"

Darren: "I liked the changing of the guards."

- About the object of the school project

John: "I liked finding out about the history and how they used animals back in war"

Annie: "I liked see different picture of animals in war"

Toby: "I liked the museum and I enjoyed learning about the army"

Carly: "What I liked about the trip is that we got to see what animals help us in the war"

and that's why I love dogs because dogs were used in the war."

Comparison of final slides, which form the third narration of the school project, with the proceeding narrations in the exercise books

It seems that the slides do not reach the complexity of the first narration about *my favourite animal* in the exercise book (result of first 2 weeks of project) and the second narration with the report about the excursion to horse guard and animal in war memorial (4th week of the project). There could be responsible the following reasons:

- The **PowerPoint slides** as cooperative work needs to reduce the individual input.
- At the end of the workshop students **reduce their final interpretation about war** to a grippy message for themselves.
- Students reduce their information about the workshop to a **compact message to the school audience**.
- There is a lack of motivation because the presentation take place in the **final week of school before summer holidays**.
- There is a lack of motivation, because the **workshop ran to long** with the presentation in school.
- Students have no experiences with PowerPoint.

In respect of Lev Vigotzky's concept of obuchenie, the balanced relation of teacher and students for learning, the teacher avoids to use PowerPoint slides as tool for lecturing. He argues, that PowerPoint lecturing cements the imbalance of teacher-learner-interrelation: "2 years ago I made a conscious decision to not teach lesson content using IT; for me the embodiment of this was PowerPoint presentations or 'Interactive' Whiteboards. I felt that it encouraged complacency in my teaching methods, reduced learners to mere observers, did not utilise the space in the classroom, and turned the concrete into the abstract. The whiteboard was only used to display videos as a visual learning tool. Instead, I relied on exploring and experience subject matter by feeling, smelling, holding, seeing, demonstrating, role play, worksheets, and student led teaching. The epitome of this for me was watching an interactive whiteboard activity where students had to drag and sort objects into hard or soft. How had technology come to replace pupils physically sorting a collection of objects with their own hands?"

References and Footnotes

¹ "Re-interpretation of war and peace: a personal learning journey using mobile devices"

² Vygotsky, L. (1978 / 1930) *Mind in society*. The development of higher psychological processes. Edited by Cole, Michael et al., Harvard University Press, Cambridge, MA.

³ Dourish, P; (2004) 'What we talk about when we talk about context.' In *Personal and Ubiquitous Computing* 8(1), 19-30. Also available at: <http://www.ics.uci.edu/~jpd/publications/2004/PUC2004-context.pdf>

⁴ Pachler, N., Bachmair, B. and Cook, J. (2013) 'A socio-cultural frame for mobile learning.' In Berge, Zane L. and Muilenburg, Lin Y. (eds) *Handbook of Mobile Learning*. New York: Routledge, pp. 35-46

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⁵ Wood, David / Bruner, Jerome S. / Ross, Gail (1976): The role of tutoring in problem solving. In: *Journal of Child Psychology and Psychiatry*, 17(2), 89-100. Pergamon Press. Printed in Great Britain.

⁶ Obuchenie, explanation under <http://www.karger.com/Article/Abstract/278339>;
Wertsch J, V, Sohmer R, Vygotsky on Learning and Development. *Human Development* 1995;38:332-337. Published online: January 20, 2010

Abstract

"The theoretical framework of Vygotsky entails specific understandings of learning, development, and the goal(s) of development. In Vygotsky's usage, the term obuchenie, frequently translated as 'learning', more accurately indicates the interaction of teacher and student. Although the various domains (phylogenesis, sociocultural history, ontogenesis, and microgenesis) to which Vygotsky extended the concept of development have differing dynamics, the course of development within each domain is characterized by the transformative effects of cultural tools (mediational means) upon their users. Vygotsky posited a form of abstract rationality associated with decontextualization, a semiotic potential inherent in all human languages, as an ideal endpoint (telos) of development. Evidence that Vygotsky at times assumed the existence of another telos, corresponding to the semiotic potential of contextualization, has implications for a potential developmental account of heterogeneity in human mental functioning."

⁷ http://en.wikipedia.org/wiki/Zone_of_proximal_development;
The interrelation of teacher and students

⁸ Luckin, Rose, Clark, Wilma, Garnet, Fed, Whitworth, Andrew, Akass John, Cook, John et al. (2009). *Learner Generated Contexts: a framework to support the effective use of technology to support learning*. In: Mark, J. W., McLoughlin, L. and C. (eds): *Web 2.0-Based E-Learning: Applying Social Informatics for Tertiary Teaching*. IGI Global. 2009

Cook, John, Bradley, Claire, Lance, Justin, Smith, Carl and Haynes, Richard, *Generating learning contexts with mobile devices*, in: Pachler, Norbert: *Mobile Learning. Towards a Research Agenda*. Occasional Papers in Work-based Learning, volume 1, pages 55-74 WLE Centre. London 2007

Laurillard, D. (2007) 'Pedagogical forms of mobile learning: framing research questions.' In: Pachler, N. (ed) *Mobile learning: towards a research agenda*. WLE Centre, Institute of Education, London, pp. 153-176. Available at: http://www.wlecentre.ac.uk/cms/files/occasionalpapers/mobilelearning_pachler_2007.pdf

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⁹https://www.google.com/search?site=&tbm=isch&source=hp&biw=1280&bih=587&q=animals+in+war&oq=animals+in+war&gs_l=img.1.0.0l2.6441.12487.0.15478.18.12.2.4.5.0.174.1054.5j4.9.0....0...1ac.1.51.img..3.15.1092.99Fti2oVpqY&gws_rd=ssl

¹⁰ This is in line with the following consideration Pachler, Bachmair, Cook 2010, P 355: In the educational tradition Lev Vygotsky worked among others on a model to relate the development of children and young people to the curricular learning in the school. Vygotsky saw children developing on the basis of the assimilation of the concepts of the adult, that means of the assimilation of the outside world (1986/ 1934, p. 154 f.). But he criticized intensively the dominance of the learning object for school learning. Vygotsky proposed "that an essential feature of learning is that it creates the zone of proximal development; That is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalized, they become part of the child's independent developmental achievement." "Zone" can be seen in the traditional categories of child development as developmental phase or in situational categories as a specific context. The central task of a teacher is to understand "how external knowledge" are "internalized" and assimilated by the children with their "abilities" (1978/ 1930, p. 91). This internalization will be successful if a teacher offers the external knowledge within "zone of proximal development" (1978/ 1930, pp. 84 ff.) of the children or young people.

¹¹https://www.google.com/search?site=&tbm=isch&source=hp&biw=1280&bih=587&q=animals+in+war&oq=animals+in+war&gs_l=img.1.0.0l2.6441.12487.0.15478.18.12.2.4.5.0.174.1054.5j4.9.0....0...1ac.1.51.img..3.15.1092.99Fti2oVpqY&gws_rd=ssl

¹² Definition of mobile learning the recent handbook Berge, Muilenburg (2013) (p. XXXi)

"Wireless, easy-to-carry, mobile devices lead to the learner's mobility, untethering that individual from a particular place. This also allows learners to converse and explore information across the many locations and contexts in which they find themselves throughout the day. As the learner faces the need for information or problem-solving, the need is for personal, just-in-time performance support, information, or learning to meet these individual challenges. To a large extent, m-learning can be thought of as communication in context."

¹³ The concept of narration stems from Labov, Waletzky (1967) und Bruner (1991). Labov, William, Waletzky, Joshua (1967/1997). "Narrative analysis: Oral versions of personal experience." Reprinted in The Journal of Narrative and Life History, 7, 3-39. Bruner, Jerome (1991): The narrative construction of reality. Critical Inquiry, 18, 1-21. In this project about 'animals in war' and its report 'narration' aims first of all to an alternative of assessment oriented writing of the students.

¹⁴ Jocson, Korina M. (2012): Youth media as narrative assemblage: examining new literacies at an urban high school. In: Pedagogies: an International Journal. Volume 7, Number 4, 298 -316

¹⁵ <https://www.youtube.com/watch?v=aBW5dfRoG7Q>

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- ¹⁶ Wednesday, June 25th, 2014: This is where the ioe-facilitator came in to observe two Special education needs (SEN) lessons before our joint project in 8JH formally started. Ben was formally introduced by Jack to 8JH during circle time (starter period in lesson, student and teacher sit in chair circle), where Ben talked with students about his professional background in educational psychology, and then proceeded to outline the research schedule (projected timetable and site of project e.g. horse guard parade) to the class. Ben then observed Jack teaching the rest of the lesson on their previous work. Ben then observed Jack teaching 7RG about 'What materials are Earth made from'. During this lesson Ben observed how I used the FRESH schema to 'scaffold' a desired learning environment, and how Rhodein and Devante used Jack's mobile phone to research/observe videos on the Earth's inner-core.
- ¹⁷ During the planning of the project it was considered to have the educational visit to the Imperial War Museum, but this was closed until the 19th of July.