Laurence Habib and Elisabeth Juell
Before and after Lightfoot/León
Using rich pictures to illustrate an educational journey through the world of opera and ballet

Abstract
In this article, we describe part of an action research project carried out during a classroom-based art course at a higher education institution. We gave the students themed collaborative drawing assignments, with the purpose of achieving a rich picture of what they associated with the notion of “going to the opera”. They completed assignments before and after attending a guided tour and a ballet performance at a famous opera house. We aimed to address two main research questions: a) How can the students’ understanding of opera and ballet develop through their experience of a ballet performance? and b) How can drawing activities in the classroom support collaborative learning and the students’ personal development? The data gathered involved three main elements: 1) the rich pictures themselves, 2) the teachers’ observations of the students and 3) the students’ reflections on the process. The study points towards a significant transformation of the students’ representation of the concept of opera, as illustrated in their drawings. We discuss how the students’ drawings may reflect their development in terms of attitude and their newly acquired knowledge of an artistic genre they knew little about, and suggest new avenues for further research.

Keywords: rich pictures, collaborative drawing, sociocultural approach to learning, transformation, opera, ballet

Introduction
Cultural experiences outside the classroom are usually seen as enriching the students’ learning experience and contributing to their personal development. There is for instance a long tradition in history education of engaging students using visits to local public history venues such as museums (Sundermann, 2013). In the realm of higher education, field trips are an intrinsic part of many courses and programmes within a wide array of academic and professional fields, ranging from geography (Chang et al., 2012) to law (Higgins, Dewhurst & Watkins, 2012) and marketing (Castleberry, 2007). There is also a tradition of including excursions to live performances such as concerts, ballets and operas in the curriculum of various types of courses (Drago, 1993; Eyring, 2014).

Concurrently, there is a growing interest within higher education in documenting the processes of learning or personal development students undergo when participating in the various activities constitutive of an educational programme (Bowne et al., 2010). Much attention is paid to identifying the learning objectives of any given activity and assessing the learning outcomes of that activity. It is therefore legitimate to look for ways to investigate what students can learn from attending a live performance.

This article presents details of a series of activities carried out within the realm of a course in Creative Art Therapy, including a guided tour of a famous opera house and attending a live ballet performance at the same venue. These activities outside the classroom were combined with classroom-based drawing activities designed to provide the students with tools to better understand their own transformations.

In this article, we aim to shed light on two main research questions:

1. How can the students’ understanding of opera and ballet develop through their experience of a ballet performance?
and

2. How can drawing activities in the classroom support collaborative learning and the students’ personal development?

We first provide an overview of the theoretical background of the research, including the concepts of sociocultural learning, collaborative learning and rich pictures. We then describe the research methods adopted, present the data and finally discuss the findings in light of the research questions and suggest areas for future research.

Theoretical and Conceptual Background
In order to begin to answer the research questions, there is a need to review the various theories relevant to the context within which the questions are asked. Our aim for this section of the study was twofold. First, we wanted a better understanding of the changes that students undergo when they participate in a transformative activity outside the classroom. Second, we aimed to investigate in what way classroom-based activities could be used to help the students get a better understanding of their own transformative learning.

The concept of transformative learning has evolved over the years. While the early literature focused on the individual elements of a learner’s transformation (Mezirow, 1975; 1994; 2000), later works have emphasised the situated nature of educational settings that use experience as a key source of learning (Hodge et al., 2011; Illeris, 2014). We have therefore chosen to focus on theories and concepts that can help in understanding the situatedness of learning, more particularly sociocultural perspectives on learning and collaborative learning. We will also review the conceptual tenets of the notion of rich pictures, particularly with regard to how drawing activities can support learning.

Sociocultural perspective on learning
The teaching of creative arts has developed considerably in recent years. Amongst the various developments to have occurred within the field of art education, there seems to be a growing interest in using activities inspired by a sociocultural perspective on learning.

Many consider the work of Lev Vygotsky (1978; 1979) as the main pillar of sociocultural psychology (Penuel & Wertsch, 1995). One of the most remarkable tenets of Vygotsky’s writings is that they challenged the assumption that development is a process that primarily takes place within an individual. Instead, he proposed viewing mental functioning as tightly intertwined with social activities. He suggested that individual and social processes of learning and development are interdependent, and that individuals acquire knowledge through participating in collaborative activities and working with others (Wertsch, 1985; 1991; 1994). Vygotsky’s proposition provided a framework that has found much resonance in educational research (Tappan, 1998; Mills, 2010; Lau, Singh & Hwa, 2009; Eun, 2010; Rassaei, 2014). His ideas have been further developed in a large number of influential scholarly works that argue for an understanding of learning as socially situated (e.g. Lave & Wenger, 1991) and that highlight the collaborative aspects of the practices with which the learners engage (e.g. Rogoff, 1998).

The relevance of sociocultural approaches to art education has been illustrated in their contribution in clarifying the difference between the assessment evidence for “knowing how” and the assessment evidence for “knowing that” in art education (Cunliffe, 2005). Much of the literature on the use of collaborative learning in art education focuses on early childhood (e.g. Knight, 2008; Frisch, 2006), primary (e.g. Alter, Hays & O’Hara, 2009) and secondary school education (Lang, 2007). The use of sociocultural approaches as a basis for learning the arts in higher education has also been documented in a number of scholarly works, for
example in the area of singing instruction (Latukefu, 2007) or composition (Partti & Westerlund, 2013).

**Collaborative learning**
A sociocultural perspective on learning emphasises the role of social interaction between learners (Cobb & Yackel, 1996). The notion of “interaction” does not necessarily involve structured activities. However, educational programmes often centre on getting learners to perform a number of activities designed to help them acquire insights, knowledge and skills. The word “collaborate” is derived from the Late Latin *collaborare*, which means “to labour together”, and is defined as “to work with another person or group in order to achieve or do something” (Merriam-Webster’s online dictionary, n.d.). Collaborative learning can, by extension, be defined as learning together with others in order to achieve a goal. In this article, we understand the term collaborative learning as the process of acquiring skills, knowledge and insights through activities involving purposeful interaction with co-learners.

Collaborative learning forms are generally used as a foundation for the construction of shared knowledge. In higher education, peer learning has been adopted for a number of reasons, ranging from increasing student achievement, reducing the workload of academic staff and providing students with generic skills in terms of communication and constructive feedback (Reise, Samara & Lillejord, 2012). Peer learning takes a variety of forms, including peer review as a method for formative assessment (Søndergaard & Mulder, 2012), reciprocal peer tutoring (Iserbyt, Elen & Behets, 2010) and peer group learning (Shears, 2013). However, the method of using rich pictures to highlight processes of individual and collaborative learning is relatively new in the art sciences. It is therefore interesting to investigate further its potential as a catalyst for learning.

**The concept of rich pictures**
We define a “rich picture” in this article as an unstructured diagrammatic representation of an idea or a situation, including both objective and subjective elements. A rich picture is typically drawn by hand with few limitations as to what may be represented and how. As such, it may include icons, symbols, cartoon-style bubbles and text, although the amount of text is often kept to a minimum.

The concept of rich pictures has been widely used within the discipline of information systems, mostly to obtain an overview of a “problem situation” that a system is supposed to improve (Checkland, 1981; Checkland & Scholes, 1990; Checkland & Poulter, 2006). Much of the literature on rich pictures mentions their primary role as a support for interaction and collaborative communication (Checkland, 1981; Checkland & Scholes, 1990; Bell & Morse, 2013a; 2013b), as they are said to offer “a way of global communication that far exceeds the limitations of text and speech” (Berg & Pooley, 2013, p. 361). The use of a graphical interface for communication, such as rich pictures, is said to facilitate the inclusion of participants from a variety of cultures and professional backgrounds (Jacobs, 2004). Rich pictures are meant to be the fruit of a collective endeavour where a variety of participants get together to achieve a shared understanding of a problem situation (Bronte-Stewart, 1999). They are also meant to give a voice to the various stakeholders (Walker, Steinfort & Maqsood, 2014). In addition, rich pictures can be a tool to allow diverse members of a group to make underlying conflicts visible. For example, Bell and Morse (2013b) suggest that “[d]iagrams in general and rich pictures in particular can be a great means to allow groups to explore their subconscious, their occult sentiments and conflicted understandings” (p. 331). In a pedagogical context, rich pictures are used to provide an additional channel for students to express what they know, what they think they know and what they are interested in knowing more about (Williams, 2000; Fougner & Habib, 2008).
Background of the Study
The study was conducted as part of a two-year part-time course in Creative Art Therapy (60 credits) at a Norwegian university college. The 19 students taking the course were typically mature students, most of them aged between 35 and 50, and were mostly in full-time employment, typically as teachers, nurses and therapists. The course took a modular form, with six meetings per year on campus, each lasting between two and five days. Much of the learning activities took place between the physical meetings, particularly through using an online learning environment (discussions using an online chat function, handing in assignments, accessing each other’s work online). The course covered topics such as process psychology, therapy forms, self-understanding, dialogue, colour and form understanding, visual competency, understanding symbols, semiotics, deconstruction and reconstruction of symbols and the drawing of movement. It is important to note that the concept of rich pictures was not presented to the students as a technique to be incorporated in their future practice as art therapists, but instead as a tool to support their own individual and collective learning.

As the students were mostly in full-time employment, they had few shared social arenas outside the classroom. The course teachers were therefore eager to facilitate social interaction between the students, in light of Vygotsky’s (1978; 1979) understanding of learning activities occurring in a social context. An excursion to a ballet performance provided an opportunity to combine learning and social interaction between learners. The shared experience of attending the performance could then be a platform for a new type of peer learning.

The students were offered the opportunity to attend a ballet performance of Lightfoot/León (the husband and wife choreographic team of Paul Lightfoot and Sol León) at the Oslo Opera House, as part of a course in the drawing of movement. The ballet representation was to differ from classical ballet, as it consisted of modern dance with a number of different classical and contemporary pieces as background music (from Puccini, Rossini, Offenbach, Schubert, Ink Spots, Layton, Johnstone, Cuartero and Livingstone/David among others). One hour before the performance, the students had a guided tour of the opera house with members of the opera staff who provided them with background information about the forthcoming representation, including information about the music, the performers and the process of developing the choreography as a couple. The guides also pointed out a number of special episodes to which the public might be interested in paying more attention. Of the 19 students taking the course, 18 participated in the excursion.

The performance aimed to create a number of different atmospheres with the help of movements, music, sounds, silences and rhythms, using simple costumes and a basic stage set that were used effectively and aesthetically. There were a number of surprises, for example several kilograms of sand falling on the head of one of the artists. The audience was also surprised to see and hear the dancers screaming, especially as human voices are rarely used in a ballet setting. The fact that one dancer appeared naked on the set at one point was another surprising episode, which brought about loud reactions from the younger members of the audience.

In order to allow the students to reflect both individually and collectively on their learning process, the teachers gave them a number of assignments directly related to the performance. These were aimed at allowing the students to reflect upon their own knowledge and pre-understandings, and upon the changes that occurred due to the experience of attending the performance with their co-students. The first assignment was individual, and the second and third were collaborative. The second assignment was set and carried out prior to the performance, while the third assignment was set and carried out after the performance. All 19 students enrolled in the course participated in all the assignments, including the student
who did not attend the performance and guided tour of the opera house. In this article, we will concentrate on the two collaborative assignments, which we will refer to as Collaborative Assignment 1 and Collaborative Assignment 2.

**Research Methods**

We chose a qualitative approach to carrying out the research. The study was part of a wider action research project aimed at implementing and evaluating new types of learning and personal development activities within and outside the classroom for various student groups at a number of universities and university colleges in Norway. This wider project consisted of gathering student reflections in the form of reflection notes, conversations and rich pictures before, during and after various types of educational activities with a transformative element, such as internships, excursions and new learning methods. The wider action research project involved five Norwegian higher education institutions, fifteen lecturers and around two hundred students at those institutions.

Action research has been defined as “(...) a participatory, democratic process concerned with developing practical knowledge in the pursuit of worthwhile human purposes (...)” (Reason & Bradbury, 2001, p. 1). One of the characteristic elements is that it allows and requires a high degree of self-reflection (McNiff & Whitehead, 2002). Within an action research paradigm, it is usual to make use of a variety of qualitative research methods, including observation. However, the use of observational data has been associated with a number of possible risks, including selectivity, memory limitation, post-hoc rationalisation and stereotyping (Cotton, Stokes & Cotton, 2010). For that reason, we chose to combine observational and other types of data, which meant our data material involved three main elements: a) the rich pictures themselves, b) the teachers’ observations of the students during the assignments and during the performance and c) the students’ reflections on the process of drawing the pictures, gathered through conversations and through a semi-structured focus group interview at the end of the second session. In that sense, we could play on a variety of devices to construct our account of the activities carried out within the realm of this study, as suggested in Potter and Wetherell’s (1987) notion of “interpretative repertoire”.

We chose to use a narrative format to describe the data, and to illustrate our narrative with examples from the pictures drawn by the students; we did not gather narratives from the students due to time constraints. Presenting the data in narrative form is an established action research method (Stuart, 2012; Kajamaa, 2012). Polkinghorne (1996b) describes the narratives as centred on a “plot”, i.e. a central theme that includes “the setting, protagonists and goal toward which the actions and events are aimed” (p. 300). He suggests that such a plot includes dramatic happenings usually related to the achievement or non-achievement of a goal. One of the advantages of the narrative is that it can “integrate disparate elements into a meaningful unity” (Polkinghorne, 1996a, p. 364). Our research involved students from a large variety of backgrounds, and included a number of activities that may be considered disparate, for example presenting the performance to the class, presenting the drawing activities, creating the actual drawings before and after the performance and attending the guided tour of the Oslo Opera House and the performance. We could have described and analysed each of those activities individually, but this may have caused the material to lose some of its richness. Therefore, we chose to use the narrative form to provide a more holistic view of the process, which enabled us to present the project as a lived experience, and not merely as a succession of activities.

The two authors of this article carried out the observation activities during the classroom assignments, during the guided tour and during the performance. They purposely performed the classroom observations from two different locations in the classroom in order to gather as much detail as possible from the students’ interaction and discussions. In
addition, they took photographs of the collaborative rich pictures every five minutes, and took photographs of the students while they were working on the picture, with their consent. The two authors met after the last assignment and compiled a first narrative based on their observations.

One of the authors was also one of the course lecturers, which meant there was a need to clarify her role in the study. She therefore gave a short presentation of her action research project to the students before distributing their assignments, and explained why and how they would be involved in the data collection. She explained that, since the assignments required little teacher participation, she would concentrate on her role as a researcher during the classroom sessions, in particular on her role as observer and interviewer. The students all consented to participating in the research project according to the Norwegian Social Science Data Service (NSD) procedures and guidelines. The students were also asked to reflect upon their role as participants in a research project during the focus group interview after Collaborative Assignment 2.

Presentation of the Data

Collaborative Assignment 1: Collaborative drawing before the representation

We first asked the students to draw individually a picture of what they associated with the concept of “going to the opera”. We chose to concentrate on the word “opera” because of an observation we had made. Although the Oslo Opera House is the home of the Norwegian National Opera and Ballet, and although the students knew they were going to see a ballet performance, the teachers noticed that the students consistently talked about “going to the opera” and joked about how “peculiar” and “scary” such an experience would be. The focus on the word “opera” may partly have arisen by the focus in the Norwegian media on the Oslo Opera House, which has won several architectural prizes and is considered a major tourist attraction. In order to get a better idea of their preconceptions before the performance, we decided to ask them to focus the rich picture on “going to the opera”.

Immediately after they had carried out their individual assignment, we asked the students to draw a common picture on an approximately four-metre long sheet of white paper that was placed on the floor. This was done for purely practical reasons because none of the walls available in the room was long enough for the purpose. We allocated 15 minutes to carry out the assignment, but the students became so engrossed in the task that we could not convince them to stop drawing before they felt that they were finished, approximately 30 minutes after starting.

We noticed that they interacted with each other extensively while drawing, talking and laughing. All of them drew something, and many chose to draw several elements in the collaborative pictures in different places. It can be suggested that, since they had chosen a course in picture therapy, the students had a natural interest in graphics and were used to expressing themselves with pictures. However, not all the students seemed to feel comfortable creating complex drawings, and some of them resorted to using text as part of the rich picture.

Some of the students were more reserved that others, particularly male students and older students; they participated, but initially with less enthusiasm that the others. However, as time went by, they did loosen up and participated in the drawing activity in the same way as the others. This phenomenon is reminiscent of the “ripple effect” described by, for example, Wilson and Wilson (2009). There was a lot of laughing throughout the assignment, and that may have rendered the task less daunting for those students who were at first sceptical.
Figure 1: Details of the rich picture drawn collaboratively before the visit to The Norwegian National Opera and Ballet (Collaborative Assignment 1).
At the end of the session, we asked the students what they thought of the setup. Some of them said that they did not know what to expect, as they had never done anything similar before, while several of them mentioned that looking at other students’ drawings gave them new ideas. Most of them also stated that drawing on the floor made the assignment more play-like, which in turn rendered it less “scary”.

**Collaborative Assignment 2: Collaborative drawing after the visit and performance**

For this assignment, three persons were present in the room in addition to the students. The first person was the creative art therapy teacher-facilitator present during the first assignment. The second was the creative art therapy practitioner who is also the team coordinator for the course. The third was an academic from another department who had some experience of using the rich pictures method in educational settings, but no knowledge of the creative art therapy field.

In order to ensure the settings for the assignments were as similar as possible, the organisers of the session decided to allocate the same amount of time taken up in previous assignments. Because the teaching slots at the university college last only 45 minutes, and time was needed to present the assignment in a comprehensible manner, there was no time to carry out both an individual drawing and a collaborative drawing assignment. Therefore, as the literature on rich pictures emphasises their collaborative aspect, and because the picture obtained from the first collaborative drawing assignment was significantly richer than the individual pictures, the session organisers decided to focus on the collaborative drawing. The next assignment was therefore a collaborative drawing of the same type as produced during the first collaborative assignment, and was allocated 30 minutes on the course schedule.

This time, we gave the students another four-metre long sheet of paper, which was placed on the floor. On this occasion, brown paper had to be used instead of white for financial reasons. Although given only 30 minutes to complete the collaborative drawing, the students again became so engrossed in the task that they continued drawing for another 15 minutes. Perhaps because the paper was so long, some of the students that were spending much time on drawing tended not to get up and go round the paper to see what the rest of the class was producing. The facilitators had to remind them regularly that they were welcome to get up and look at the entire paper in order to be able to provide feedback both orally and in drawing form. This helped achieve a dynamic approach to the drawing process, where students did not only use and look at one area, but considered the whole spectrum of drawings and texts.
The students explained that they felt freer drawing on brown paper than on white. Our interpretation of this is that white paper as a foundation gives a feeling of decorum, of having to produce a “perfect” picture, thereby bringing about a certain amount of stiffness and reservation on the part of the students. Using brown paper, on the other hand, is often associated with more daily down-to-earth activities such as packing parcels, and may therefore have rendered the task less formal and allowed for the production of more impulsive drawings.

It is interesting to note that although the facilitators had only provided them with whiteboard markers, a couple of the students took the initiative to use other types of drawing equipment that happened to be lying around the room. This gave the facilitators the idea to encourage all the students to look for further inspiration as far as drawing materials were concerned, which resulted in many students reaching for alternatives such as pastel crayons, oil-based crayons and pencils.

One point that requires more thorough consideration is that the students were not given any limit as to how much space on the sheet they were allowed to use for their pictures. This resulted in some of them arguably using an unreasonable large amount of space, and in other students being limited in how much space they were left with in order to express
themselves. Some of them drew smaller figures within the realm of whatever free space remained, while others did not feel constrained by the already-drawn pictures and simply drew on top of them. Because the drawing started to get crowded, the facilitators rolled out more paper to make space for additional drawings. This was possible because the roll of paper was significantly long; this would not have been possible on the whiteboards or blackboards on which rich pictures are often drawn.

The students reported that the method allowed them to remember more features of the ballet representation. This happened both because they were enjoined to think back on their experience and because they were given the opportunity to see the drawings of fellow students.

**Reflective note on methodological issues related to classroom research**

We are aware that the activities carried out in the assignments are not directly comparable. Various constraints due to time and the availability of material (for example white paper being unavailable for Collaborative Assignment 2) have come into play and can be seen as disruptive if one was to consider the action research study as a traditional scientific experiment. However, the classroom research literature suggests that such disruptions are typical of interventional setups in classroom settings (e.g., Brown, 1992). Acknowledging their existence can provide a useful description of the nature of the context of the experiment, and of the nature of the interaction between context and participants (O'Donnell, 2004).

**Discussion: Comparison of the “Before” and “After” Products**

We can see a considerable difference between the rich pictures produced during the first session (Collaborative Assignment 1) and those produced during the second session (Collaborative Assignment 2), both as far as style and content are concerned. The pictures from the first session reflected the fact that most of the students had never been to the opera, despite the significant media focus on the new Oslo Opera House that since opening has proved a popular tourist attraction. The students seemed to present opera singers in a caricatured way, as overweight, rigid, wearing outdated clothes and screaming rather than singing. Those pictures lacked detail and had a rather one-dimensional feel to them. Most of the pictures represented almost exclusively what was thought to happen on an opera stage, with little or no representation of the audience.

The rich pictures from the second session (Collaborative Assignment 2) were very different from those of the first session. First, they were significantly more detailed than those produced before the excursion to the opera house. The caricature element was mostly gone, and ballet and opera were portrayed in a much more nuanced manner. The pictures of fat, middle-aged opera singers were replaced by depictions of graceful ballet dancers, combined with detailed representations of the backdrop of the performance. It is also interesting to note that the first pictures represented action on the stage from a “long distance” perspective, almost as if seen through binoculars (“opera glasses”), whereas the second set of pictures included representations of the performance from a much closer standpoint. The impression to emerge from the second set of pictures is that the students had somewhat “appropriated” the concept of ballet and opera and made it their own.

It can be hypothesised that the difference between the concepts of opera and ballet is significant in this context. The Oslo Opera House, which opened in 2008, houses opera, ballet and concert performances. It may be suggested that the very name of the venue as the Oslo Opera House contributed to performance types other than opera being less common or clear in everyday speech. This in turn may have played a part in shaping the students’ conception of the Oslo Opera House as a venue solely or mainly dedicated to opera performances.
Another significant element in comparing the process and result of Collaborative Assignments 1 and 2 is the choice of drawing tools. The students chose to use different drawing tools in the second session than in the first session, and this allowed them to express more powerfully some of the elements that seemed to have made a big impression on them during their excursion. Although the “after” picture included impulses drawn from both opera and ballet, we observed that the students used particularly rich colours when depicting scenes from the actual ballet performance. For example, some students drew the curtain in bright red with crayons, which brought to light how important that detail was to them. Through this diversification of the materials used, the picture became significantly livelier and more expressive, with for example oil-based red hearts and pink dresses on the dancers. The use of different materials also allowed for a more nuanced expression; for example, the lightness in the movements of the dancers was far more perceptible when drawn using pastel crayons.

![Figure 3: Details of the rich picture drawn collaboratively after the visit to The Norwegian National Opera and Ballet.](image)

A final significant element in comparing the two collaborative rich pictures is their actual format. It is apparent from the second collaborative rich picture that the students allowed themselves to take more liberties with the format of the picture. In particular, the one student who had not attended the performance represented himself as a bewildered figure asking in a cartoon bubble: “Perhaps I should have been there?” This in turn prompted another student to add in another colour: “Yes. Yes, yes, yes!” What we witnessed was a case of dialogue literally happening in the picture (see Figure 4), dialogue that may not have happened if the students had simply sat around a table to discuss the performance. This experience suggests that the expressive form allowed in the drawings can ultimately, in some contexts, be more impulsive and less influenced by known norms than the more common dialogue form of oral discussions.
Conclusion

This study has helped us shed light on our two research questions, which were:

1. How can the students’ understanding of opera and ballet develop through their experience of a ballet performance?

2. How can drawing activities in the classroom support collaborative learning and the students’ personal development?

The study provided us with insights into the students’ preconceptions regarding the idea of “going to the opera”, which were somewhat rigid and “black and white”. It also allowed us to establish that they acquired a deeper understanding of the complexities of opera and ballet, and of the processes that lie at the heart of such performances.

Drawing rich pictures before and after the performance was a useful exercise in both uncovering the students’ preconceptions and in bringing to light the types of insights they had acquired from attending the performance. It is interesting to note that working with rich pictures, in particular collaborative rich pictures, brings about learning processes aligned with a sociocultural perspective on learning. Specifically, students reported gaining more insights into the world of ballet and opera from looking at what other students had drawn and from exchanging comments with them while adding elements to the common picture.

Two important observations about the process of drawing rich pictures came about in a rather serendipitous manner. The first was that working on the floor rather than on a whiteboard or flip-over appeared to be liberating for the students. The other was that using brown paper rather than white paper helped render the task less daunting. Those two findings illustrate how practical and material issues can affect the collaboration aspect of learning processes.

It can also be hypothesised that students participating in rich picture sessions can more easily find their place and their voice within a community of learning. For example, students that may have been quiet in a discussion format may feel freer to express themselves with paper and pens.

The experience described here may pave the way for future research into the use of rich pictures drawn collaboratively within other types of educational processes. More specifically, the appropriateness of rich pictures as tools to explicate the preconceptions, expectations and transformations of the students as they have various types of learning and personal development experiences may be the subject of further scholarly investigations.
References


