

# Visual Literacy and Visual Communication for Global Education

## Innovations in teaching E-learning in Art, Design and Communication

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### Abstract

This paper presents the (student) proceedings of a successful inter-university co-operation between a research university and a university of applied sciences, in the field of Visual Literacy and Visual Communication. The origin lays in the international symposium "Digital Communities for Global Education" (Enschede NL, 2006) and the start was a web-based course in Informational Graphic Design. The ongoing development is an experimental master course in which students of both institutes work together. The participating professors are also involved in European Co-operative networks as well as Trans Atlantic- and Euro-Asian ones. Participating students are coming from all over the world so give the course a multi cultural character.

Research questions for the project are 1) what is the universal content of a message and 2) how can this message be encoded? 3) what factors do influence the interaction processes in networked education?

Key words: e-learning environments, visual literacy, visual communication.

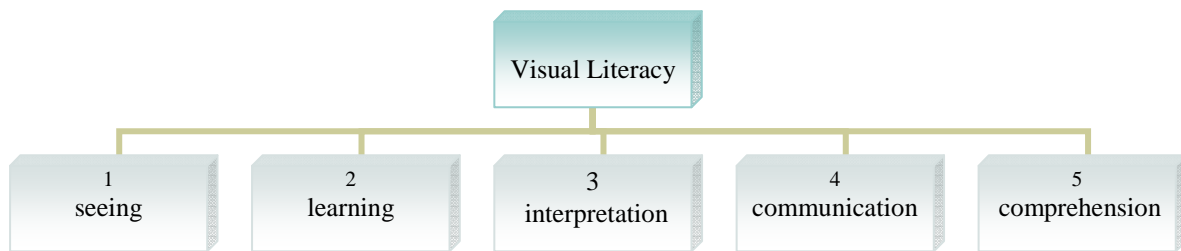
### Introduction

The first research question led into the fields of symbolism, iconology and semiotics and to the parameters of what a student today needs to know to "read" an image. The second question concerns the research instrument and is technique oriented, it needs an orientation into the traditional analogue visual skills along with the possibilities and basic skills for digital visual communications. The third question is focused on the praxis of the ongoing process. The learning strategy is focussed on building small learning communities in which co-operation and interaction are the main competencies. Because of the innovative character of this project as well as the application of experiences in the field in the recent past, the results will be submitted to a mini-symposium where direct colleagues can give their comments. The full paper will have the premiere in the Conference "Designs on eLearning."

### What is Visual Literacy?

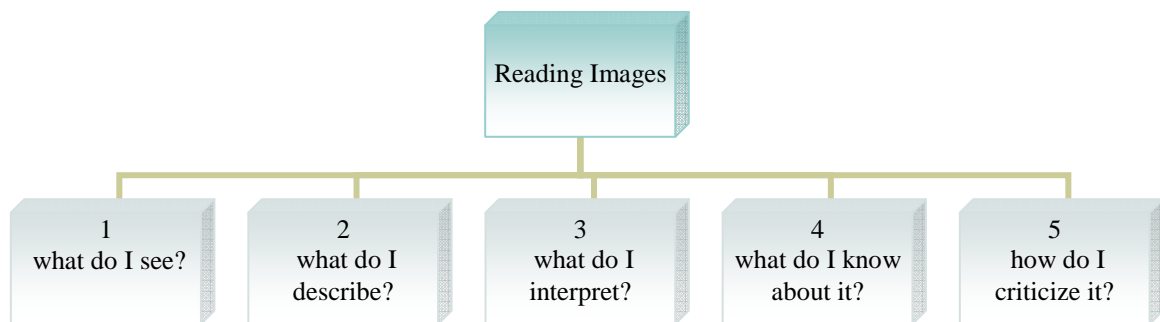
The shortest definition that I use for my students is: "Visual Literacy is the ability to read and write images." To make meaning of images the user has to criticize and reflect on them. For the students the original definition, given by John Debes at the first national conference on Visual Literacy (Rochester, USA, 1969) was also used: "Visual Literacy refers to a group of vision competencies a human being can develop by seeing at the same time he has and integrates other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, and /or symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual communication." Actually Debes describes five steps of visual communication. Since 1969 the International Visual Literacy Association (IVLA) mainly and some others also have made countless variations on this definition although none has really joined content. The five steps of Debes can be characterized as:

Fig.1



The term Visual Literacy was not first used by Debes and the concept might even go back to Comenius in the 16<sup>th</sup> century or even to Plato, two and a half millennium ago. The short definition of the previous paragraph includes the ability to successfully decode and interpret visual messages and to encode and compose meaningful visual communication. In relation to the mass media and the new media, students need to be aware of the manipulations and ideological implications of visual messages. There are many forms of visual communication including facial expressions, body language, signs symbols. Visual sign systems are all around us: i.e. theatre, film, fashion, advertising, photography and last but not least art (exhibitions). To read these systems one needs to develop the skill of visual language just as one needs to learn to read and write verbal language. This may sound logical although in schooling there is hardly any (serious) attention to develop this skill. Visual Literacy is treated, like music and other artistic disciplines, as a stepchild. If ever present in the curriculum, Visual Literacy is not an autonomous discipline, it is not even confined to a particular traditional discipline. It should have to be taught from the youngest age, like the mother tongue, as a basic skill for communication, it is nowadays pending between Art History and Educational Technology. In this course two instructors from the two (extreme opponent) disciplines lectured on the introduction of this discipline. And with success, students were interested, eager and active. The time limits were straight, focused on one morning a week with multiple activities: lectures, workshops, presentations, discussion and interaction for both faculty and students from the participating institutes. It might be good to state that, even when the focuses of the students might suggest the contrary, there was not a specific psychological approach. Similar to the diagram of Debes is the one developed (by he author) for the Dutch Educational television:

Fig.2

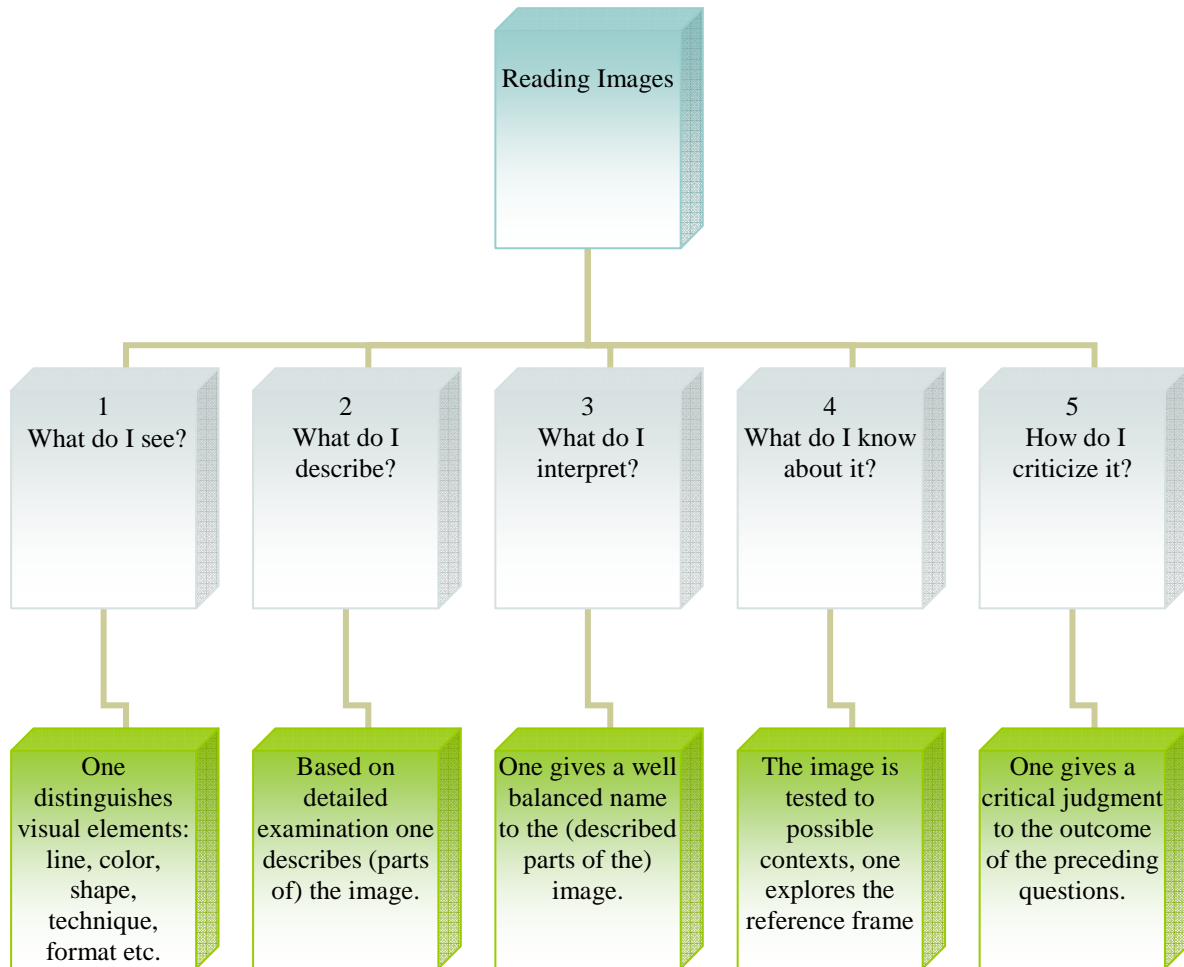


The students was told that the first step; what do I see, is an absolute personal experience and can not be communicated. Also that the second step is always a selection that influences the third step. They also were warned that it is hard to interpret excluding what one knows about it because of the personal frame of references. And finally that criticizing is meant to be positive and well balanced. The judgement “ I (don’t) like it” has to be founded.

## Reading Images

To see an image is the first step, but to examine an image, aware of composing parts, is more. The experienced 'reader of images' will use the mentioned five steps automatically (unconscious), like a dancer who does not count the steps he makes or a reader who understands a text without analyzing the sentences and naming the words. But now, to train the skill to read images, one has to make the steps, one by one, systematically and careful. Like parsing, naming words and semantic exercises can help to achieve a better understanding of verbal language, this process can contribute to a better understanding and judging of images.

Fig. 3



Based on these five questions of approach we come to a fundamental/ grounded meaning on images and we can place/locate them in a certain context (publicity, art, history etc.).

Images seen in advertisements, journals, periodicals and on the monitor/screen of our computer, are mostly composed results of graphical design and manipulated photographs. These images, photographs, are so common and familiar to us that our examination is mostly limited to the first glance. This casualness is caused by the avalanche of images poured out by mass media. The characteristic of photographs is that we presume them to be a representation of reality, and easy to be understood: one sees what is shown. This sounds simple, but you will experience that it is quite difficult to describe an image in a way without personal interpretations included. An effective tool is the system of visual elements like: line color, shape, rhythm etc. By staying consequently in the use of the elements, the description will be what it has to be: objective.

The questions *What do I see?* and *What do I describe?* lead to distinguish and appointment of the composing elements of an image. This description is made in general terms, not indicating judgment, but objective.

i.e., "in the photograph I see a part of a room, two walls, no floor no ceiling, in the left wall is a door, closed, and in the right one a window, closed. The walls are yellow ochre, the window frame and the door are dark green. In the room is a black table, on the table lays a journal folded open. In the room, at the table, is a chair, on the chair is a human being etc...

A representation, image, of reality is not identical to the reality. It is the image of a creator, who determines what is shown in the image (the content) and how it is shown (the form). The way the creator influences the reality depends on the character of the work. Think about the different styles in art history. A landscape in the Baroque is informative, with many details and dramatic colors and contrasts, an impressionistic landscape wants to show the forming qualities of light and an expressionistic shows the personal approach of the artist leaving apart the visible reality. The same is for photography. Press photography will be more a registration of reality than publicity and art photography that are put on and manipulated. One makes the connection between the elements of the image and reality by asking ourselves, What is the connection?

The question *What do I interpret?* deals with: who is in the image, what they do, where was it made, why was it made, in short; to what do the elements refer?

i.e., Clothing refers to a profession or a social group while attributes refer to status or to the place where the picture was made. Body language and positioning refers to the relation people have.

Now that is known what is the meaning of the image, it is evident to connect a judgment to what we see. We like or don't like the form (aesthetics) the content appeals to us or not (ethics). Until now we limited ourselves to an objective description, we looked at it from distance, but now we are opening the dialogue. The image has to tell something. Images have more than just a literal meaning, so called *denotation*, but it has an association to other ideas as well, *connotation*. The given interpretation is subjective and limited by the reference frame of the interpreter. The reference frame is the whole of knowledge, experience and opinions from the spectator. The reference frame is individual/personal. The lover of nature will look to a tree with different eyes than the producer of wooden furniture. An important part of the frame is limited by the culture one lives in. The Christian symbol of the cross will lose its value in a non-Christian culture. The way an image is interpreted is never fixed. If the creator does not take into account the reference frame of the spectator it is very possible that communication will not occur.

The designer makes the image with a special intention. If the spectator makes the right interpretation that depends on the correct use of visual elements.

i.e., The designer chooses the composition, point of view and the moment. The composition determines what is shown and what is not shown. Somebody seen from a low position connotes the meaning of power and might.

An image is hardly ever an isolated image, it is shown in a context, a setting, and refers to another context out of itself. An image can be part of a series of images it can include a verbal text, because there is not a single meaning between image and meaning, the text is often an indicator for the interpretation. The place where we find the image is important for the interpretation. A photograph in a journal will have a different appeal on the spectator than the same photograph in a museum.

Images are interpreted from out of the reference frame. The designer often uses codes which meaning is so familiar that the viewer recognizes the image at first glance. Some images are even so stereotypical that we hardly look at them (visual archetypes). The power of visual expression is the manipulation of reality. This process varies from subtle to evident. As long as humans make images they manipulate them to show their vision on reality, from the cave paintings (30 000 BC) to the world press photo this year. Thanks to modern, digital media, images can be constructed and manipulated pretending to show the real world. This is used in press, publicity, politics and art. If we know this it will be clear that the skill of reading images is a condition for building a good judgment.

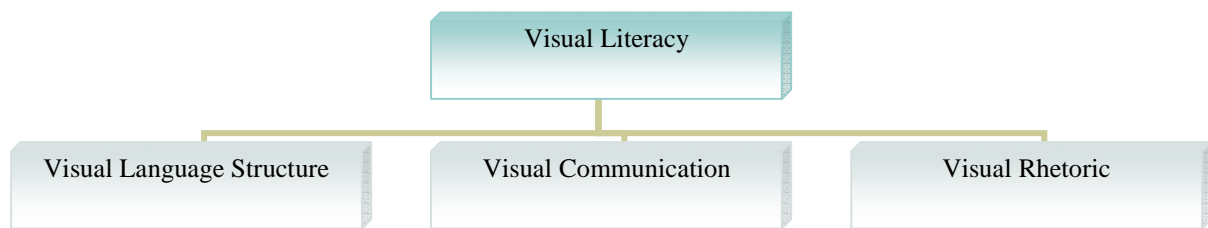
IF YOU LOOK CAREFULLY, YOU WILL SEE MORE. IF YOU KNOW MORE, YOU WILL LOOK DIFFERENTLY.

## Why Visual Literacy & Visual Communication?

The contemporary culture has become enormously dominated by visual communication. Not only locally or national but also because visual language structure has a much more global character than a verbal language will ever have. Take the profane symbols used to indicate the male and female toilets; as long as visuals are used most people end up in their gender specific toilet. On the contrary if there are used capitals to indicate

L(adies) and G(entlemen), in the Netherlands this would be D(ames) and H(eren) and in France even M(adames) and M(essieurs). So Visual Literacy works better for the viewer to understand the message. The economy relies on visual presentations for company identity because of design, style and other visual anchors (like celebrities).

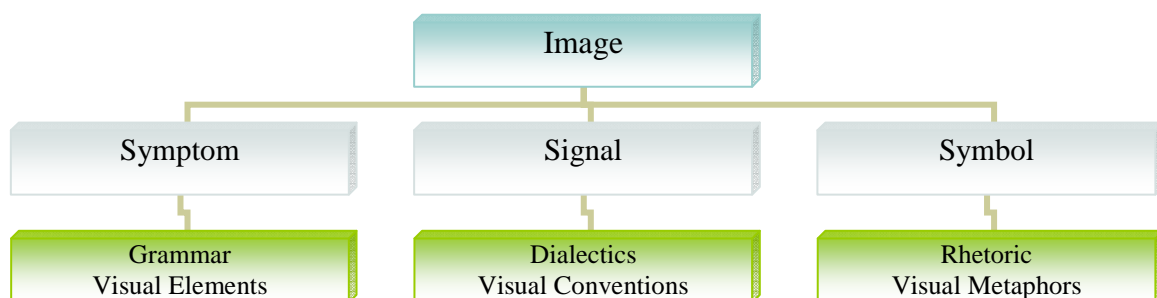
Fig.4



We are heading to world of visual literacy as we have been dominated (since Gutenberg) by a world of verbal literacy. The conventions of visual communication are a mixture of universal and (parametric) cultural conventions, so easy accessible to all. Visual Literacy is a combination of syntax and semantics, form and content, syntax is the appearance limited by the visual elements. Semantics (semiotics) are the content, the way images fit into the process of visual communication. Especially this relation between form and content is a domain of this research. As with written and spoken literacy. In his essay, "The Rhetoric of the Image" (1964), Roland Barthes provides a conceptual framework for studying word-and-image relations in cultural artefacts. This component of Visual Literacy was not excluded although not focused on in this research.

Visual Literacy differs depending on context and purpose. The goal of this experiment is to find how students are able to read and write in images and which factors influence this process. In a condensed form of reading images the students were told to look for three (instead of five) steps, or better components of reading images:

Fig.5



One of the implicit and explicit skills that was included in the introductions was the visual language structure. Similar to the three levels of verbal language, grammar, dialectic and rhetoric, are introduced the levels of visual language: visual elements, visual dialectics and visual rhetoric. Visual elements are the phenomena that build the totality and expressive quality of an image. They are split up in fundamental elements: line, colour, and shape, compounded elements: form, space, and composition, dependent elements: repetition, point of view, and moment, and finally material elements: textures, techniques, and experiments. Within the time limits of the experiments we did not go into details of these visual elements although some of the student's experiments did. Visual Literacy also includes dialectics, the world of signs and symbols used to evoke visual communication although this world is not yet parametric limited as verbal dialectics are. There can not be written a dictionary of meaning of visual symbols as there are for verbal ones because they are limited to a local language. Visual symbols have a much more universal meaning. A dictionary would be enormous because the one we started to build exceeds already 400 pages. But it also gives a rich experience of global diversity. Last and most complex is the visual rhetoric. If we use the eyes of Da Vinci's Mona Lisa, as we did in the poster for the course and the cover of the book of proceedings, most Western people recognize this and even many non-Western. Visa versa a painting from Ming dynasty will be qualified as Eastern without any detailed information. It goes beyond the borders of this paper to explain more about this phenomenon.

## Research

Intro: Education asks for continuous innovation in its paradigms and teaching approaches. Therefore, new and advanced courses, updated material and various modes of teaching are encouraged.

Innovation in education: The course “Visual literacy and communication” is one of the innovative courses. The main difference is that it is not based on traditional educational paradigms, but the important course characteristic is shaping the community of practice (cop). More precisely, cop concept specifies the strategy, structure, culture, personnel, management and systems of the course (Van der Kolk, 2007).

Developing and carrying out the course based on the cop principle was a very creative task which was a result of teamwork between 5 teachers. Moreover, those teachers were already connected in the community of practice through informal network and common interests. The exciting part was that they designed and executed a new course which was regarded contradictory by the management. The teachers represented two educational institutions (the University of Twente (UT) and Saxion Hogeschool which is higher non academic institution). The participants of the course were the students from both institutes. Thus, the newness also resided in collaboration between 2 educational institutes which differ in their educational approach and students. Moreover, teachers themselves had different educational background and expertise, thus, interdisciplinary approach was applied in the design and implementation of the course.

The course embedded two parts: literature study and visual literacy experiment. The main goal of the course was to build up a community of practice which consists of teachers and students from UT and Saxion. Therefore, the main focus was to develop students as junior researchers which resulted in the concrete outcome: the book compiled from students’ papers. The challenge lied firstly, in motivation of the students with different background and prevailing needs (academic versus practical students). Secondly, the teamwork and collaboration of students from different institutes which don’t have common courses, was at question. Lastly, the lectures and seminars were very intensive.

Question: Though the course is designed and carried out in an attractive way, the main question remains what is the impact of new course characteristics to students’ motivation, learning and interaction between each other?

Methodology: To answer the effects of the innovative course, 3 questionnaires were applied. Inter-learning inventory was designed to measure learning and interaction factors. The Intrinsic motivation inventory (IMI) (Ryan, 1982 in McAuley et al., 1989) evaluated students’ motivation and COP (communities of practice) inventory was developed to identify course characteristics. All the questionnaires applied the same (1-5) gradation scale where 5 meant strong agreement and 1 strong disagreement. There were 20 respondents in the research. For statistical analysis Pearson correlation (2-tailed significance) was applied.

Four dimensions of motivation were measured: interest-enjoyment, perceived competence, effort-importance and tension-pressure (McAuley et al., 1989).

The cop components evaluated were strategy, structure, culture, personnel, management and systems of the course.

Results: Results have indicated that course characteristics have significant impact on all 3 variables: learning, motivation and interaction between students. The strongest relationships were between the course characteristics and learning (0.704) and the course characteristics and interaction (0.685). The relationship between motivation and the course was statistically significant, but not that strong (0.489). An interesting finding is that learning is related to motivation (0.653) and interaction between students (0.535).

As motivation consists of different components, it was also interesting to indicate what components are most influenced by the characteristics of the course. Results show that student’s perceived competence level (0.725) can be most influenced by the course characteristics, while student’s interest in the course depends also on the course characteristics (0.608). On the other hand, there was no significant relationship found between the course characteristics and student’s effort put in the course. Surprisingly, tension and the course characteristics were insignificantly, but negatively related (-0.398).

As course is characterized by 6 components, it was important to evaluate which components are the best predictors of students’ learning, motivation and interaction. However, the following course characteristics

reduce tension-pressure factor and it is not known if the student can always be motivated without external pressure. Results have shown that systems and strategy components had strongest relations with those three variables.

Conclusion: The conclusion of this research points out that the characteristics of the course have positive influence on students' learning, interaction and motivation. That's why scholars and educators should be more conscious and experimenting with the study material and educational approach.

Discussion: To support and expand conclusions, further research and the bigger amount of respondents are needed.

## Overall Conclusion and Discussion

The course: "Visual Literacy and Visual Communication for Global Education" was delivered in three month only. This gave a quit high workload on the students, also because interaction between students from different locations is time-consuming. From starting cohort of 50 participants 10 left because they had subscribed to other courses as well. The first task, an individual literature research, was a heavy task for the Saxion students but in second task, the practical experiment they could show their skills. The intense tutoring was motivating as was the interaction. The co-operation between Asian and European students was good and made some statements relative. When 40 individual-14 teams of students are doing research in the field of Visual Literacy it shows that there is no standard terminology and some authors have deviant visions. In the next version of the project there has to be a reader in which a standard is chosen and students must explain where the differences are manifest when they use other authors.

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