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Visual Notation: An Image Making Approach for Communication in Illustration Education

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Abstract: Visual notation is a practice-based education approach that facilitates and incorporates creative thinking, visual literacy, drawing skill and communication processes in relation to Illustration. In line with experiential design studio teaching and a didactic lecture format, visual notation enables a form of thinking and deeply engaging conceptual reflection tool which enhances visualization skills, communication and knowledge of image making. Similar to other design disciplines, an Illustration practitioner utilizes image making processes such as visual notation that require rapid conceptual development, individual aesthetic, succinct production methods and effective communication. This paper describes an effective pedagogic approach applied within an Illustration education context which facilitates deeper student engagement with discipline specific knowledge.

Keywords: Education, Interpretation, Viewers, Visual Notation, Illustration, Drawing

Introduction

This article frames the process of visual notation as a form of thinking utilized within Illustration professional practice which can facilitate creative thinking, visual literacy and communication for students. Through a case study focused on Illustration studio courses at the University of South Australia this article demonstrates a teaching approach through which students achieve deeper critical engagement and interpretation of lecture content and discipline specific knowledge.

Within Illustration education, image making technical skills and associated design theory are predominately developed through studio based experiential learning which simulates professional practice incorporating specific process strategies or design processes (Cross 2011). Image development and production is conveyed to students through practice, the Illustration practitioner's design process, which utilizes "reflection" (Schon 1995, 49), described by Thompson and Thompson (2008) as a multi-perspective cyclic approach, questions assumptions and incorporates influences, experiences and knowledge relevant to the individual practitioner to resolve specific project requirements. Illustration design processes are facilitated by drawing, combining thinking and making processes such as visual notation, described as sketching, brainstorming and spider diagrams to communicate ideas and solutions for image making (Wigan 2006, Male 2007, Zeegen 2005).

Visual notation as a practice-based education approach aims to develop student expertise in Illustration, specifically in creative thinking, visual literacy, drawing skill and communication processes. Reflecting professional practice, visual notation is introduced through the sketch book/journal/visual diary to create a dialogue between the Illustration student, their teachers, peers and ultimately clients. Visual notation has been adapted as a primary teaching tool within Illustration education at the University of South Australia, as it encourages reflective practice in image making and can reveal a student's level of technical skill, critical thinking and visual literacy.

Through the use of a sketch book, visual notation fosters an illustrator's skills in drawing and illustrative media, enabling the practice and refinement of a distinct "visual vocabulary" (Male 2007, 42). Visual Notation is an approach that supports the documentation of ideas and observations specific to an individual's perception and experience of the world as a form of self-dialogue. This dialogue may manifest as literal, metaphorical and imaginative drawings which contributes to and develops an illustrator's visual literacy, defining them in the marketplace through a unique visual style and language.

Visual notation is stigmatized by the belief that any form of drawing requires a high level of skill before it can be regarded as a valid and valuable form of communication.

This assumption and the emphasis on digital interaction impedes the use of analogue drawing to convey, develop or communicate information (Crowe and Laseau 2011). The rising use of digital technology, the internet, ease of access to photography, images and graphics has impacted on the use of drawing and visual notation as a means of communication (Crowe and Laseau 2011). Digital technology is shaping human communication through interface with devices such as mobile phones, smart televisions, virtual reality, tablets, computers (Campbell and Park 2008). Moving and static photos, video, sound and text, typing and swiping are preferred over mark making, writing, drawing and visual notation skills. This impact is most obvious throughout art and design tertiary education in which emphasis on drawing as a primary skill for communication, idea generation and conceptual development has declined in preference of digital literacy and screen communication. The declining use of drawing is further exacerbated by the introduction, integration and emphasis of digital devices and online delivery in art and design pedagogy throughout the primary and high school education systems in Australia.

Illustration Expertise

'Expertise' in Illustration practice, similar to other creative, scientific and social domains, is to possess 'skill', a body of knowledge, language and set of processes specific to the professional practice. Illustration expertise has been acknowledged as a distinct profession since the late nineteenth century, with the advent of mass communication print mediums, books, magazines and newspapers. Illustration is a creative discipline that can be categorized through the practice of drawing, Illustrative media technical skills, modes of practice and a variety of commercial enterprise (Arisman 2006, Male 2007) described as "reportage, medical, historical reconstruction, information illustration" (Brazell and Davies 2014, 48). Predominately the Illustrator's role as professional practitioner is to develop images which offer a "unique perspective on events and situations" (Brazell and Davies 2014, 48), providing visual commentary, a sense of place or which convey information and narrative.

Illustration expertise emphasizes communication and technical image making skills, exemplified by (Arisman 2006, Wigan 2008, Zeegen 2005), 'drawing', which is a core component of contemporary Illustration practice. Fundamental to Illustration expertise, drawing is regarded an essential skill utilized to record, represent, convey and portray information ranging from conceptual, imaginary, technical and representational, depending on the "intent" of practitioner (Frazier 2003, 48). However, whilst commentators agree that drawing expertise is critical to Illustration professional practice, the level of technical drawing expertise required by a practitioner is not clear, Arisman (2006), Male (2007) and Zeegen (2005) argue that an Illustrator's drawing expertise, often categorized as 'draftsmanship' must include facsimile figurative skill which is used to describe and plan image form, composition, perspective, texture and proportion whilst Wigan (2006) suggests that drawing is only important for visual thinking, to interpret the world, to visually articulate, communicate thoughts, ideas and emotions and extend the 'visual vocabulary' of the practitioner.

Cognitive expertise within Illustration is recognized tacitly through practice, manifesting through drawing conducted in notebooks, sketchbooks and visual journals, which are utilized by Illustrators to document visual ideas and experiment with mediums. Consciously developed by Illustration practitioners this practice-based design process (Cross 2010) refines an illustrator's visual literacy which comprises of two identifiable skills, visual acuity and visual expression, described as drawing, doodling, concept sketches and visual notation. Visual acuity, the ability to receive and interpret visual messages and visual expression, developing and sending visual messages is critical as it is consistently utilized and applied within Illustration professional practice throughout

project development, client negotiation, collaboration and the image development process (Crowe and Laseau 2011).

The multiple, contemporary roles of illustrators are grounded in both cognitive (creative) and visual communication skills as well as technical image making abilities. A successful expert illustrator is categorized as highly educated, a visually articulate, socially, culturally and historically aware empathic communicator who possesses a broad range of practical and intellectual skills (Arisman 2006, Male 2007, Poynor 2010). Illustration as a field of practice has evolved beyond the service provision of technical skill into visual communication of concepts and subject matter (Brazell and Davies 2014, Male 2007). The widespread adoption of digital technology and subsequent proliferation of free digital images has seen a reappraisal of the value of the illustrator. Contemporary Illustration practitioners are now regarded as hybrid image makers capable of transdisciplinary practice whose expertise in image making (visual communication) can facilitate the application of knowledge in domains beyond Illustration's traditional fields of practice (publishing, design and advertising industries) (Grove 2011, Wigan 2006). Subsequently Illustration education has begun to emphasize practice-based cognition and critical thinking (visual notation) alongside the development of related technical skills and knowledge. This shift in Illustration education enables student Illustrators to acquire transferable skills that are "not only practical, but intellectual and knowledge based" (Male 2007, 116) including a "command of written and oral language, presentation and research" (Male 2007, 116).

Visual Notation

Visual notation is a communication process that conditions the way we process information, allowing the organization and assembly of ideas, thoughts, impressions and facts (Crowe and Laseau 2011). It is a form of documentation that facilitates reflection in order to achieve and retain deep understanding of the subject matter. Visual notation is a method of abbreviating meaning through analytical and critical thinking, expressed as images and written language that enable description, examination and reflection. As a form of expertise within Illustration professional practice, visual notation utilizes images, visual and written elements to communicate ideas, develop imagination and record insights.

The Illustration practitioner utilizes visual notation, like other design disciplines, including architecture, landscape architecture, product design, interior architecture and communication design, which manifests as drawing, sketching and writing throughout the formative and iterative stages of the design process. It is also utilized across a range of professions to develop diagrams, record, store and communicate information, including engineering, science, botany, biology, anthropology and archeology (Crowe and Laseau 2011, Anzai 1991).

Specific to the Illustration field, visual notation is an essential communication skill within professional practice. As a process of communication, visual notation provides a succinct approach to image production and professional interaction within Illustration professional practice (Cross 2010, Rodgers, Green, and McGown 2000). Visual notation enables multiple project solutions (Cross 2010) referred to as 'thumbnail drawing', 'idea generation', 'concept development' and can convey understanding between the Illustrator, project collaborators and their clients. Depending on the context and application of a commissioned image (Male 2014), illustration projects can be extensive in their development, requiring extended visual notation in order to convey ideas and content. These drawings require rapid conceptual development to effectively explore the project topic and to develop understanding of the problem being investigated.

Drawing

The act of drawing, especially visual notation, is intrinsic for the development of critical thinking as it effectively sharpens perceptions and enhances the ability to retain and recall knowledge (Brown 2014, Andrade 2010). Incorporating different levels of drawing, visual notation is categorized within Illustration practice using terms such as sketching, doodling, and thumbnails, concept drawings, concept drawings and visual research. As forms of drawing, visual notation accommodates representation, abstraction and symbolism. Representation is explained as conveying accurate depictions relevant to the intended message. Abstraction is a way of distilling and simplifying information to be conveyed, consequently abstracted drawings often emphasize important or specific information only. Symbolism, similar to abstraction, employs the combination of images and generalized marks, forms and shape, which in conjunction can rapidly convey meaning. Basic drawing skill is required to communicate visual notation; however high-level drawing skill is not necessary if meaning is conveyed succinctly. A variety of drawing approaches can be incorporated to visually notate a range of information, the visual language utilized is dependent on the preference and skill level of the Illustration practitioner.

The use of rapid drawing to communicate concepts and ideas becomes more significant than verisimilitude or realistic depiction of form, underscoring the illustrator's "ability to use the representational act to reason with on the fly" (Goldschmidt 2003, 72). Interpretation, selection and recording for the function of communication is highlighted through this drawing approach. Regular practice of drawing within this communicative context leads to increased student confidence, as an accepting, inclusive understanding of drawing expertise is emphasized rather than mastery or hyper-real drawing skill, reflecting the different understandings suggested in the literature specific to drawing expertise in Illustration professional practice.

Teaching approach

At the time of writing, visual notation is practiced weekly within four illustration courses at the University of South Australia, with approximately sixty student participants in the second and third year of the Bachelor of Design, (Illustration and Animation). Illustration image making processes and techniques are taught within each studio course, practiced and refined by students when undertaking course projects within a design process framework. Visual notation fulfills an auxiliary function within the teaching of Illustration studio courses at the University of South Australia. As an extension of studio teaching approaches, devised to supplement course contact hours, visual notation provides students with an additional learning mechanism outside of the design project structure. This approach evolved due to gradual changes in tertiary education similar to those documented within related fields, for instance graphic design education. Waarde and Vroombout report a number of tensions, namely changes "in funding…organizational structures…increasing numbers of students, decreasing numbers of staff, and increasing requirements for qualifications of staff" (Waarde and Vroombout 2012, 23). These external developments have contributed to a pedagogical shift from a technically orientated master-apprentice studio teaching approach to an emphasis on applied critical thinking, utilizing an experiential learning approach that is design process orientated.

Framing the act of visual notation as a form of thinking within the illustration design process emphasizes creative thinking, communication processes and visual literacy for students. Visual notation is outlined as an exploration and experimentation used to visually record an event or information through both image and text. The selection and interpretation of content through visual notation is non-proscriptive, encouraging analysis and critical reflection. Students are encouraged to experiment and practice, explore a

range of visual techniques and a range of page structures (layout/composition) with the aim of developing a personal visual language and system of rapidly recording information.

Students are required to visually notate the weekly lecture of the primary Illustration studio course. Within the University of South Australia teaching model, lectures are defined using a standard lectern model, a formal presentation by an academic staff member, usually to a large number of students. Important theoretical, contextual, historical and technical information relating to Illustration practice is delivered to students through handouts and audio-visual presentations, with limited opportunities for students to ask questions or discuss the material. It is a teaching approach that has been historically ineffective within Illustration Studio courses, with lectures suffering from low student attendance, minimal engagement and poor student retention of critical information relating to Illustration practice. Utilizing visual notation, the aim is to facilitate a deeper student critical engagement and retention of the studio lecture content and discipline specific knowledge through the discrimination and interpretation of presented material. It is a teaching approach that provides students with an entry point in developing their individual visual style or language whilst providing a flexible framework of visual possibilities that can facilitate solutions to studio projects.

The visual notation project connects with Illustration professional practice in keeping a sketchbook or journal and fits within the tradition of a visual travel diary to record insights, experiences and information. All of these practice-based approaches require the critical observation and interpretation of ideas or experience, realized as a multi-entry, visual output. Furthermore, students undertake further analysis of the original information, verifying notations, re-transcribing and refining their work, utilizing reflection-on-action (Schon 1995) including sharing their work through weekly posting to an online forum.

Visual notation content is most effectively organized within a page structure (composition or layout), which refers to the positioning of type and images on a page to create a sense of hierarchy and structure (Barnum 2011). Students are required to produce at least one double page spread per lecture, a minimum of 297mm x 420mm in dimension. The project briefing is scaffolded, with examples of different page structures, drawing methods, and applications of mediums provided for inspiration and guidance. A one-hour lecture time format necessitates pre-planning; students are required to prepare a title ‘banner’ for each lecture, including the lecture title, lecturer name, day and date, an approach drawn from the work of Mike Rohde (Rohde 2013). Examples of student visual notation page structures can be seen in Figures 1, 2 and 3 below.

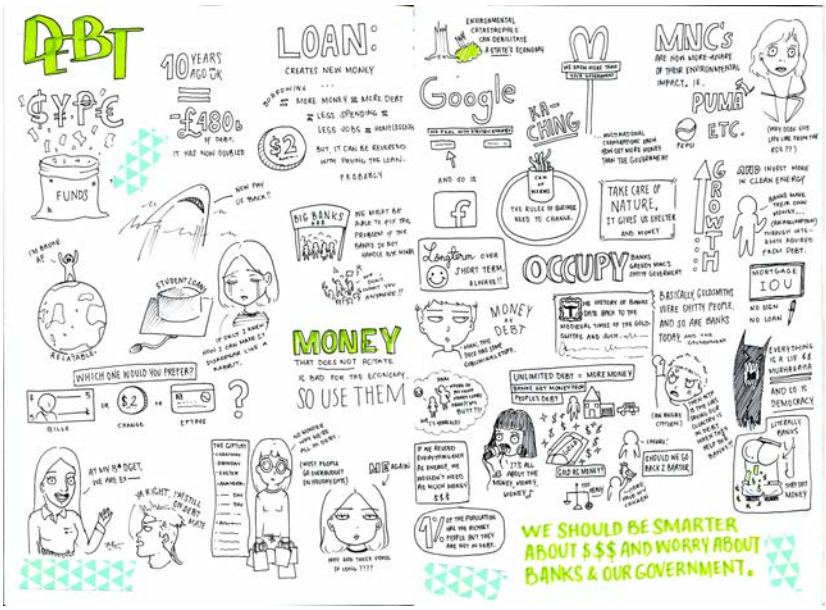


Figure 1: Student Social Advocacy Project: Topic-Debt
Source: Ignacio 2017.

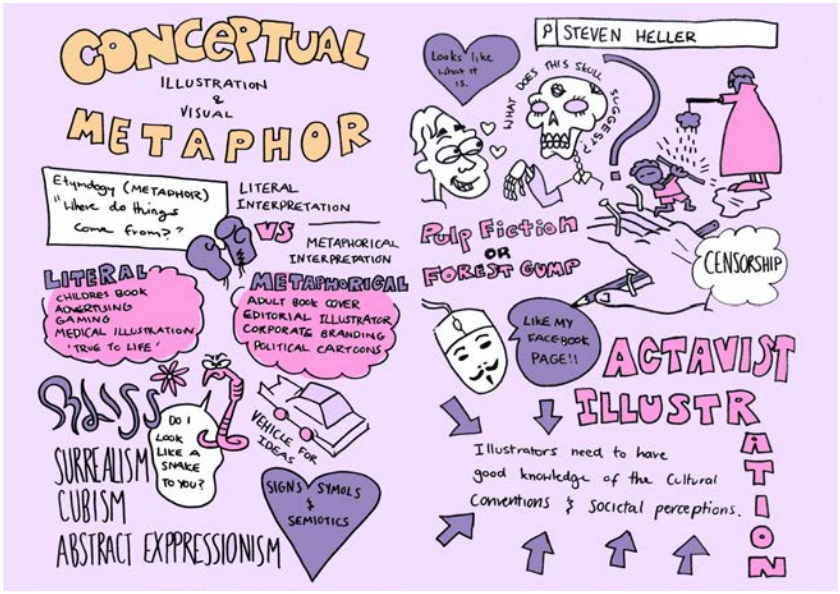


Figure 2: Student Lecture Notation: Topic-Conceptual Illustration and Visual Metaphor
Source: McCulloch 2017.

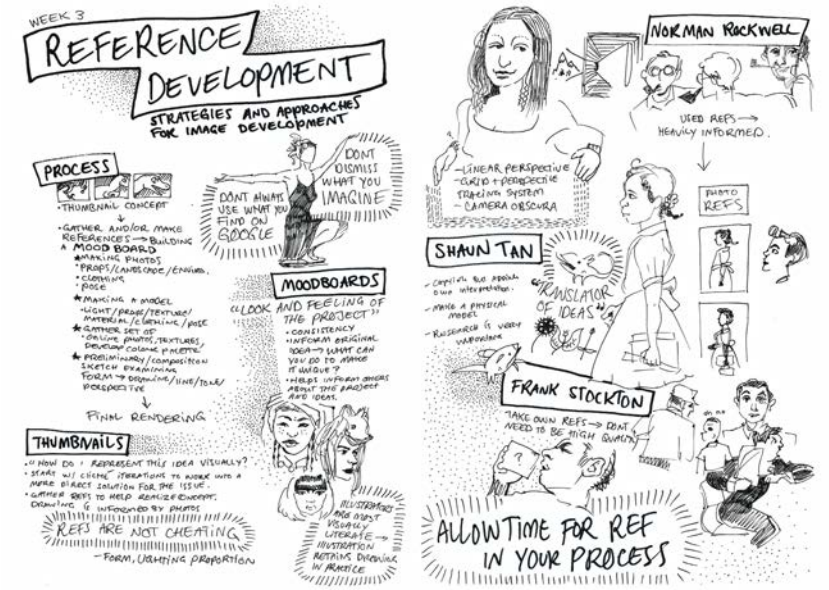


Figure 3: Student Lecture Notation: Topic-Reference Development
Source: Woods 2017.

The teaching environment is also a consideration as the lectures at the University of South Australia are delivered in lecture theatres with small desks and close seating. Students are encouraged to employ transportable mediums, deemed to be effective given the available physical space. Environmental conditions impact upon the tools, mediums and size of journal notebook students select for visual notation.

Each week students are required to complete and share their visual notation diary entry to the online course forum. Sharing reinstates the communicative aspect of visual notation, reflecting professional practice. Students also use this forum to comment and reflect upon their own and others' achievements. Posting entries online allows students to view each other's entries, drawing, experimentation, ideas and use of images, including insights into personal visual language.

The visual notation entries submitted for assessment are analyzed individually for student's application of typographic variables and structures organization of information hierarchy (page layout of text and images), and experimentation with form and/or a range of drawing materials and processes to generate image driven design possibilities, appropriate to the lecture content being visually notated. These criteria are aligned to the visual notation project aims of developing students' capabilities in creative thinking, visual literacy, communication processes and drawing skills.

Results

Visual notation is an inclusive teaching and learning approach, a valid method of visual exploration and beneficial to student engagement. The 'live' nature of creating visual notation within the lecture develops proficiency in rapid drawing and idea generation, a critical component of professional illustration expertise.

We observed student participants were more interested in the forum and comments they received from their peers than the lecturers had anticipated. This was evidenced by the high number of student comments on the work of their peers in the online forum. Conversely the lecturers found some student's motivation to participate in the visual

notation online forum was lower than others. It is surmised that a contributing factor was the extra processes entailed in digitizing traditional sketchbooks to upload to the forum.

Initially, lecturers regarded the value of the visual notation project as the development of visual literacy and communication processes, drawing skills and creative thinking. In addition, students' enthusiastic approach to the sharing of information resulted in a more socially constructed method of knowledge production. This project shifted emphasis from the traditional role of students as receivers of knowledge to co-contributors and interpreters of knowledge, encouraging deeper engagement in their learning and participation in an online community (Greenhow, Robelia, and Hughes 2009). This social approach shares parallels with the collaborative nature of professional illustrator-client relationships, described as "dual direction debate" (Male 2007, 182) with both parties informing the development of the work.

The experience of attending lectures with peers is a communal event in which delivery of information is experienced and creatively interpreted as individuals, additionally shared and discussed within the group through regular student posting of visual notations. Participation in the online community provided continuous scaffolding and sustained the teaching approach. Students described 'putting in more effort' due to an awareness of their peers' ability to view and comment upon their work. Peer to peer participation in the online environment encouraged personal responsibility and accountability, students commented positively upon their peers' techniques, skill level and use of media. Indeed, students included records of peers' comments as validation of their work within their assignment file for assessment submission. This online community dialogue impacted the project to a larger degree than was anticipated by the lecturers, students reported the positive results such encouraging or thoughtful peer comments had upon their participation in the project. From these types of experiences, it was concluded that learning within this project became more personally relevant as students shared their work in the online community.

The project resulted in a perceivable shift in student attitudes to the role of drawing within third year studio courses. The lecturers observed a higher quality of drawing and creative thinking in third year Illustration studio work, specifically a high degree of visualization relating to higher grades during assessment compared to previous years in which the same project had been taught. Engagement in the visual notation project was a contributing factor to this perceivable rise in quality. Ingraining the practice of drawing as a form of thinking and recording in a familiar setting, at a recurring event, contextualized drawing as a regular practice. Within this project, drawing practice was established as repetitive, undertaken without preconceived notions of the result or expectation of virtuosity.

Conclusion

This visual notation teaching and learning approach is successful in achieving the aims of the Illustration curriculum, specifically, enhancing students' critical and creative thinking, visual literacy, drawing and communication skills. In future iterations of the project, lecturers will recommend digital means of production that allow for a high degree of free hand drawing expediting the process of creating visual notation entries. Digital production will allow for direct posting to online social platforms as the lecture ends. This may also serve as an effective measure of 'on the fly' drawing skills, as this approach will require visual notation entries to be produced within the set one-hour time frame of the lecture, precluding time for refinement of drawings and sourcing visual references. Student recall of specific knowledge through examination will also be considered in future research by the authors. This will enable the measurement of data regarding memory retention and recall using specific knowledge sets.

Through the lens of transdisciplinary practice, this visual notation pedagogic approach is applicable within tertiary education of other disciplines, especially design and art disciplines concerned with the production of visual outcomes and have visual literacy as a key component of their discipline. High student engagement within the online component of the Visual Notation Project testified to the active learning that took place as students constructed knowledge through individual interpretations, online dissemination and discussion of knowledge. This success implies that the teaching approach may be useful for student engagement within other fields of education, including secondary and primary school education. For example, to achieve active student engagement within delivery teaching approaches, such as lectures, seminars and information gathering.

The strength of this pedagogic approach is apparent, deeper learning is facilitated through engaging students in a combination of visual, written and digital literacies. Visual Notation does not preclude those who 'can't draw' but encourages a low risk approach to drawing that encompasses a wider range of methods by which knowledge may be interpreted and conveyed. Visual Notation is a process and catalyst for student engagement, it transforms didactic teaching methods, such as lectures into written and drawn notes. It is a teaching approach which enables a socially constructed method of knowledge production, in conjunction with social platforms, that empowers students to be responsible for their own learning and co-contribute in the sharing and interpretation of knowledge.

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