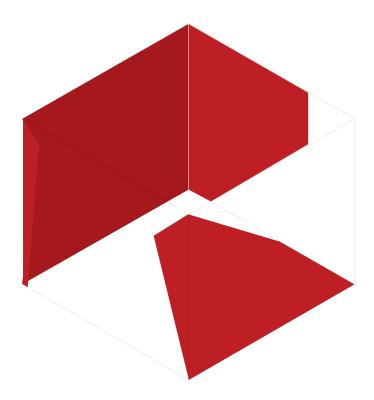
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Flow, Mindfulness and Creativity: Making a case for introducing rapid life drawing into the design curriculum

Christian Montarou

Abstract: This investigation into the role of flow and mindfulness in the production of rapid life-drawing sketches (croquis drawings) derives, primarily, from four decades of practice as both teacher and artist. The result is a reflective account of my teaching philosophy informed by the philosophies of various educators and/or philosophers, including: Benjamin Bloom, Mihaly Csikszentmihalyi, John Dewey, Nobo and Sachiko Komagata, Jay W. Roberts, Andrea Zakin, and Zhuang Zhou (aka Zhuangzi). Although not intended as a full analysis of how the concepts of flow and mindfulness might apply to the initial stages of drawing for design, I nonetheless argue for the importance of introducing these concepts into the curriculum of design education. Further, it is hoped that this paper will contribute to a wider understanding of the act of drawing—including its cognitive, psychological and philosophical aspects.

Keywords: focused/non-focused attention, life drawing, croquis drawing, flow, mindfulness, distributed attention, ego-centred control, improvisation.

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Introduction

This investigation into the role of flow and mindfulness in the production of rapid life-drawing sketches (croquis drawings) derives, primarily, from my personal strategies over four decades of practice as both teacher and artist. My 'active pedagogy' is informed by John Dewey's ideas on first-hand experience, or "learning by doing" (Dewey, 1997/1938)—that is, seeing, acting, reflecting, assessing and working further from there—and has been further informed by Jay W. Roberts' revitalization of these methods in his 2002 book *Beyond Learning by Doing: The Brain Compatible Approach*, and Andrea Zakin's pedagogy which focuses on action, reflection and evaluation, meta-cognition and inner speech (Zakin, 2007).

Whilst not new to design students, this form of experiential learning is new to many of the students I teach, who have mostly trained in theoretical subjects. Whilst they already possess 'declarative knowledge' (i.e. knowledge that is cognitive, rational and learned), learning through drawing is dependent on 'tacit knowledge' (i.e. knowledge the students already have, but that needs to be freed by accessing a wider register of references through coordinating thought, body, gaze and hand). A third form of knowledge which needs to be developed is 'affective knowledge' which cannot be measured and involves deeper, intuitive insights. Many of these students are unaware that they possess an unconscious insight or knowledge which can be brought to light through the drawing process and result in a visual product.

The key learning objective of my teaching practice is for students to become more conscious of an inner dialogue. Via a complex and multi-layered process, this inner dialogue can help direct and monitor the drawing process—thereby enabling students to easily identify and evaluate every stage of the process relative to the total outcome (Zakin, 2007). This heightens the students' awareness of the thoughts that emerge as they make different choices. So how might design students, through the practice of life-drawing, and specifically croquis drawing, attain this level of self-awareness? This question I hope to answer through an overview of my teaching philosophy and an account of achieving states of flow and mindfulness through the application of this philosophy.

Overview of my teaching philosophy

Beyond Dewey, Roberts and Zakin, my teaching philosophy (presented as a hierarchy in Figure 1), is further informed by the pedagogical philosophies of Benjamin Bloom, Mihaly Csikszentmihalyi, Nobo and Sachiko Komagata, and Zhuang Zhou (aka Zhuangzi). Zhuangzi (circa 300 BC), for instance, describes the stages and transitions between different states of mind during the process of developing basic experience (Billeter, 2010, pp. 41-80), while Bloom applies a target structure to the learning process (Armstrong, n.d.). As can be seen, attaining a state of flow precedes attaining that of mindfulness—the latter of which is described by Komagata and Komagata (2010, p. 2) as 'a mental state of being aware of the outside and inside of oneself at present without judgment, i.e., with full acceptance.'



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Continued Work	6) Transferring learning experiences to a new area.	Experiencing mindfulness This is a complex cognitive situation, 'a mental state of being aware of the outside and inside of oneself at present without judg- ment, i.e., with full acceptance.' (Komagata & Komagata, 2010, p. 2) Here, the student takes a disinterested attitude by observing phenomena from a distance. The result is a paradoxical state of mind that is fully present in the situation (mindfulness) and at the same time completely absent (devoid of ego, mind free of thoughts). In this state, action means taking the necessary steps to adapt to any given situation.
Combinatory exercises	5) Combining learning experiences into a new and composite pattern of action.	Flow of mental energy without the interference of ego At this stage, intuition takes over as a creative force. Attention is now more focused on the act of drawing than on the blurred motif in the back of consciousness, and contact with the body's cognitive unconscious is established. The body's sensory- motor archive of knowledge is available as a resource and gives meaning to the input of sensory stimuli. Previous and new experi- ences can be combined into more complex actions. The drawing appears to come into existence by itself and without any effort; this stage requires discipline and perseverance.
Evereiree	4) Guided learning: low scaffolding. Drawing becomes a routine, intuitive and reflexive action.	Focus of attention, i.e. 'losing oneself' and becoming one with the subject Consciousness can be freed for other purposes—control over the process is no longer needed to the same extent as before, because the action has been partially integrated into the body. As a transitional release, other parts of consciousness take over more complicated tasks like capturing and combining fragments of information from both past and present in new ways.
Exercises	3) Guided learning: medium scaffolding. The focus of attention is controlled.	Ego-centered conscious control This stage requires discipline and determination to control the focus of attention. It entails the ability to recognize and interpret a three-dimensional motif on a two-dimensional surface, using the aesthetic repertoire of visual elements such as lines, spacing, an- gles, proportions and symbols. It also entails learning to exclude distracting elements while working on the drawing.
	 2) Guided learning: high scaffolding. Physical, mental and emotional prepared- ness to act. 1) Guided learning: high scaffolding. Rec- ognize, observe and record lines, areas, proportion. 	Deconstruction and construction The student learns how to draw the motif whilst breaking free from the power of perception that is governed by a conventional systematization of symbols. The transformation of the motif from a physical object to an aesthetic entity has elements of partial dis- sociation, but also includes the process of integrating the shapes into figurative meaning. First, the motif has to be disassembled into a puzzle of shapes, disconnected as much as possible from any symbolic significance, before it can be reassembled into new analogical meaning in the form of a figurative drawing at the end of the process.

Figure 1. Achieving states of flow and mindfulness through mastering the task of life drawing. Christian Montarou 2012.



Whilst this is not to suggest that design students need to learn to draw as such, for this is an integral part of their practice, there are similarities in the process of sketching for design and rapid sketching from the model. The design process usually begins with the production of rapidly-executed preliminary visual drafts providing alternative solutions to a particular challenge. Although the sketching out of ideas in this germinal phase differs from life drawing, in that it is not always based on direct observation, each activity engages the materiality of the body and embodied knowledge and memory. Each involves a level of improvisation, and each involves leaving direct traces of thinking on physical surfaces. Certainly, as I hope to demonstrate, there are aspects of the practice of life drawing which suggest that it should be integrated into the design curriculum. These aspects include gaining an awareness of flow and mindfulness and learning how to achieve these states which, if achieved, can provide an opening whereby different levels of consciousness can combine to produce new insights and ideas. My reflections on the attainment of these states are inspired by my observations of students' behaviour during drawing sessions and their comments on, and reactions to, producing fifteen-second croquis drawings. These specific observations have been made over a ten-year period. According to Csikszentmihalyi (1991, p. 71), flow can be defined as: 'The state in which peo-Achieving flow ple are so involved in an activity that nothing else seems to matter' and where 'the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it'. He lists seven conditions that are necessary for achieving this state (p. 49): · An activity involving such a large degree of concentration that nutritional needs and tiredness are forgotten. · Ego-centred control of the process is replaced by a loss of self-awareness. · Becoming one with the action. · A clear goal, immediate feedback, and a sense of reward. · A feeling of mastering the situation. · The challenge at hand must be consistent with one's skills. A feeling that time has disappeared. A particular characteristic of this state of mind is that all sense of linear, chronometric time is erased. In the process of croquis drawing the artist seems to become one with time, 'fully present' in the situation while experiencing a sense of timelessness. This allows the body to play a different role in the process of perception: the anatomical, functional and rational body that creates meaning becomes less relevant. By partly 'turning off' the capacity for analytical thought, the brain ceases to perceive the body as separate from its surroundings. Instead, the brain focuses intensely on the act of drawing. Everything appears to take place simultaneously rather than as a series of events involving cause and effect. To a greater extent than otherwise, the body is experienced as being 'at one' with the surroundings and in flow' (Csikszentmihalyi 1991, p. 63). Through identification with the energy and dynamism of the model's pose, the student virtually becomes one with the model. A further characteristic of a state of flow is that it provides self-esteem and thereby transcends the boundaries of the self. With croquis drawing, students should be confident in their own abilities and not be too concerned about the results-the primary goal being to experiment and set aside any major expectations. The intensity of attention allows intuition

experiment and set aside any major expectations. The intensity of attention allows intuition to take over as a creative force and release the flow of mental energy that provides optimal conditions for action. The stages involved in the achievement of this state are well-illustrated by this example of mastering the art of tango dancing (fig. 2), where ego-centred conscious control and focused attention give way to 'losing oneself' and becoming one with the surroundings—the energy now flowing freely without interference by the ego.



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- Becoming one with the action.
- A clear goal, immediate feedback, and a sense of reward.
- · A feeling of mastering the situation.
- The challenge at hand must be consistent with one's skills.
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Figure 2. Learning and mastering the art of tango dancing.

In croquis drawing, this state can be achieved by establishing certain conditions which can help to structure attention and dispel distracting thoughts, these being:

- · Control of attention during the drawing process.
- A feeling of mastering the task.
- · Becoming one with the subject, i.e. loss of self-awareness during the process.

In artistic activity, unlike in meditation, one's posture can be informal and does not require any special positioning. However, an important similarity between meditation and drawing is control of attention. When drawing, visual attention must be fully focused on the act of drawing, and shapes, lines and colours must be seen precisely for what they are—disconnected from any meaning. Like any aesthetic experience, both situations require a sustained focus on the moment of perception. Such an approach can help bridge the initially considerable gap between the intention of drawing and the subsequent physical act. The rational mind knows what to do, but the body does not follow suit. After some practice, the perceived distance almost disappears. At this point, body and mind have begun to integrate in a way that provides ideal conditions for engaging in the act of drawing. This state of mind can be described as expanded consciousness, not in a philosophical or religious sense, but in the sense that the relationship between body and mind is in a state of flow. The experience of this state as simultaneously mental and physical is of great importance for the creative process, opening up, as it does, for improvisation and free association.

According to Csikszentmihalyi (1991, pp. 49-54), one of the conditions for achieving flow is achieving a balance between challenge and perceived mastering ability; other conditions are clarity of objective and instant feedback. In this, the timing of croquis drawing exercises and their place within a pedagogical sequence is crucial. In my teaching practice, work sessions with a model last for four hours and are divided into twenty-minute drawing intervals and ten-minute breaks. After a long period of exercises in which concentration is of the essence and in which considerable time is spent on each drawing, students move on to these rapid sketches (fig. 3). During the breaks from croquis drawing, they select three works from around the sixty that are typically produced during the course of these sessions. In collaboration, students then evaluate the drawings (fig. 4) according to the ability to render:

- The energy and dynamism of the model's pose (fig. 5)
- · The body's rhythmic movement
- Proportion and balance

By these means, students gain an insight into what their peers have achieved, while peer comments serve to assess where each student stands.



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Figure 3. Students at work during a croquis drawing session.



Figure 4. Students evaluating the drawings of their peers.



Figure 5. Rapid sketches rendering the energy and dynamism of the model's pose. Student work.

Key to motivating an experience of flow is fostering a sense of self-development and discovery that allows the artist's mind to grow and develop levels of greater complexity. The greatest obstacle to achieving a sense of flow is routine thinking brought about by one's own thoughts and concerns. Atmosphere is key to blocking out this out. This atmosphere can be achieved by using certain stimuli, e.g. marking the threshold to a creative space, using music and establishing a repetitive structure of working periods and breaks. The particular space



Studies in Material Thinking, www.materialthinking.org Vol. 11 (August 2014), ISSN 1177-6234, AUT University Copyright © Studies in Material Thinking and the author. Page 8 / 15 lends a distinct character to the situation, as do the location and position of the individual participants in the room—whether sitting or standing, body position plays a role in activating embodied knowledge (fig. 6). In addition to the primary visual focus and the way in which students are placed around the model, the inclusion of auditory stimuli (sounds, noise, music, etc.) during the drawing session can be used to stimulate the brain to concentrate on the task. I usually vary the register of sound from total silence (so that the sound of the drawing tools on paper can be heard) to jazz rhythms and classical music at various sound levels.



Figure 6. Students drawing in different positions and parts of the room during a croquis drawing session.

Giving the task to produce croquis drawings at the end of a slow and concentrated lifedrawing session challenges the students' competence in perception in action (i.e. grounded cognition). It involves coordinating and integrating different levels of consciousness in a creative engagement with the environment. Gaining an experience of flow, along with implicit or tacit knowledge of the self (through an identification with the model's body), where it is playing a partial role in the mediation of the relationship between expertise and performance, can lead to some profound insights being expressed in the drawings.

Achieving mindfulness

Although mindfulness is both difficult to describe and to convey in its entirety, it is a basic and spontaneous human experience that can be enjoyed by anyone, such as when learning to ride a bike, dance or play an instrument. From Thich Nhat Hanh's Buddhist meditation techniques to Jon Kabat-Zinn's clinical applications for therapeutic purposes (Boyce, 2011), the concept has been discussed by psychologists, scientists, artists and spiritual masters—thus demonstrating the diversity of fields in which it plays a role. The state of mindfulness I try to impart during croquis drawing sessions draws on Eastern meditation techniques—the aim being to increase students' awareness of the present moment.





Figure 7. Saul Steinberg's cover illustration for The New Yorker, 18 October 1969.

Saul Steinberg's illustration (fig. 7) depicts human consciousness as a continuous stream of thoughts, images and associations. By attaining a state of mindfulness, the artist can experience an instant of being both a participant and an observer of this process through the self's state of being. The physical act of croquis drawing shifts the artist's focus away from the external referent (the model) towards the body's internal experience and accessing sensory-motor memory. As a consequence of having 'turned off' everyday consciousness by using the methods mentioned above, a 'stream of consciousness' emerges—a continuous stream of thoughts, images and associations.

By entering into a state of mindfulness while at the same time sketching continuously, the artist can simultaneously observe their own thinking as both participant and spectator, witnessing the emergence of the subject on the drawing sheet. It is the paradoxical and concurrent experience of 'being' (by means of being aware of the outside and inside of oneself at present without judgment) and 'nothingness' (having thoughts without the presence of a thinker, *i.e. absence of ego*). This condition represents a higher level of consciousness in which the artist has moved beyond conventional aesthetic definitions of 'good' or 'bad', resulting in personal, original and creative work. The artist's range of attention is now far broader than in a state of flow, focused both on the act of drawing, the drawing itself and the motif in relationship to the surroundings. This does not imply a lack of sensibility, but only that parts of consciousness are now free for other purposes. This type of 'distributed attention' would not be possible in a state of flow, which requires full immersion in the motif and therefore a lack of mindfulness.

Mindfulness is a blind process, in which the artist's perception of the motif depends on data provided by both short and long term memory—as a result of which, non-visual stimuli are registered. The constant movement of the drawing hand capturing the position of the model creates new analogue schemata that are registered in short term memory. In its interaction with the movement of the hand, the mind chooses among many different attempts and transfers the most appropriate model schema created by the hand gesture from one domain to another. Here, the artist must combine both what he or she sees on paper and registers by studying the model with what is invisible, but registered nonetheless. It is during this timeless instant that embodied experiences from long and short-term memory overlap to



Studies in Material Thinking, www.materialthinking.org Vol. 11 (August 2014), ISSN 1177-6234, AUT University Copyright © Studies in Material Thinking and the author. Page 10 / 15 find the right identification with the model. Francisco J. Varela, Evan Thompson and Eleanor Rosch explain similar processes with their theory about 'enaction and emergence'—in which autonomous events occur in a state of mindfulness by means of a 'self-producing network of schemata' (Varela et al., 1993, pp. 234-235). The interaction of schemata (stored body experiences) synthesises the flow of information based on structural analogy, regardless of the ego's conscious control, which among other things must be mitigated by clearing the mind of thoughts as much as possible. This is an inspiring model for understanding the thought process that provides the basis for producing a drawing.

The experience of having a physical body allows the artist to recognise and identify with the model's pose without interference by the ego, and his or her knowledge of drawing makes it possible to enhance this identification by transferring it analogically into lines, surfaces, light, shadow and rhythm. Although this stage requires discipline and perseverance, the drawing appears to come into existence by itself and without any effort. The process of identification via aesthetic expression shares similarities with meditation techniques in which continuous attention to individual stable elements are of the essence. The actual focus of attention, however, is less important than its intensity. The former may vary greatly, ranging from visual stimuli to sounds, spaces or actions, depending on the meditative tradition in question. A crucial difference compared to traditional meditation techniques lies in the fact that the experience of mindfulness is not explicitly formulated as a goal at the outset, but becomes a natural and spontaneous consequence of the necessary focus of attention throughout the act of drawing. Rather than a technique, it is more about an attitude that can help disengage routine thinking and thus allow one to be more present in registering the subject in the moment. For instance, it may be seen as the result of the state of mindfulness Paul Cézanne found himself in, after painting for hours on end in the midst of the landscape he depicted, that he could say: 'The landscape thinks itself in me, and I am its consciousness' (Sandqvist, 1995, p. 396). Here, he conveys the artist's ability to empathise by projecting him or herself onto the motif via focused visual attention.

In an educational setting mindfulness is not about one person separately interacting with his or her surroundings. Instead, with clear parallels to the collaborative process of design, it involves a group situation in which students, each with a unique set of expectations, interact by focusing on a common task. This places certain mental and physical demands on the participants. Some of these demands may be addressed by a targeted use of educational resources. The rest is more a matter of organizing activities, techniques, materials and locations without any other clearly defined objectives than to be open, prepared to improvise and prepared to accept whatever might happen during a session. Nevertheless, before attempting such a session it is important to keep in mind the timing and sequence of the various progressive stages. Having practiced life-drawing regularly for several months, my students were now experimenting with a variety of ink techniques (fig. 8) and further exercising their visual imagination through the act of croquis drawing. During these sessions, students were challenged to apply focused attention, to trust in themselves and in their ability to react spontaneously and creatively to visual stimuli. Ultimately, in teaching drawing, it is a question of sharing one's own conviction that everyone possesses creative powers that can be unleashed and cultivated.



Figure 8. Rapid life sketches using various ink techniques. Student work.



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Conscious use of time pressure in these rapid drawing sessions forces students to develop a spontaneity that reflects the model's body in the selected pose. The student needs to apply synthetic vision so as to capture a fleeting reality, often in mere seconds, and record it by using unconventional techniques and materials. Materials and untraditional tools are selected with a view to facilitating improvisation. Their use invites the student to think and act spontaneously rather than to stick to familiar rules and routines. In this way, representational schemata fall by the wayside and space is freed, allowing more original solutions to appear. As a consequence of time pressure, gestural rapidity helps the draughtsperson remain fully concentrated on the act of drawing so that all perception of time ceases. In other words, the artist is at one with his/her actions, disconnected for an instant from the perspective of past, present and future. The duality between body and mind that lies at the heart of the drawing process has been temporarily suspended, subsisting nevertheless in the constant alternation between proximity (being at one with the drawing) and distance (evaluation). In terms of achieving mindfulness, this duality may well be considered one of the most important objectives in the drawing process. The terms flow and mindfulness are often used interchangeably, but are we talking about separate states or transitions between related psychological states? This issue was addressed by Komagata and Komagata when comparing the experience of flow and mindfulness in relation to the concept of concentration. They concluded that our understanding of these terms is still evolving and that it is easier to regard them as a continuum of states rather than as discrete mental states. The reason for this is the paradoxical relationship by which these states are linked. A high level of concentration, for example, may on the one hand contribute to bringing about a state of flow, while on the other leading to a loss of mindfulness.

Conclusion

This, in turn, may contribute to openness towards receiving advice and feedback that would not be possible in a state of mindfulness in which the present circumstances must be accepted without judgment. According to Komagata and Komagata, both states lead to an increased awareness of the moment, although mindfulness represents the highest level-the main difference lying in their relationship to concentration and the field of awareness. The duration of the state of flow depends on how long concentration can be sustained and requires total immersion in an activity, something that in itself will prevent mindfulness. The latter, however, is not compatible with the type of concentration found during flow. The field of awareness is narrower and more present in a state of flow than in a state of mindfulness, in which it is enhanced (Komagata & Komagata, 2010).

That said, the experience of both flow and mindfulness involves tacit knowledge about the creative process, i.e. an experience that is difficult to put into words. The ability to enter into these states requires bringing one's entire personality into play. This means accessing one's own 'spontaneous competence' (Wiese, 1998, p. 111), which is understood as a dynamic concept including not only acquired basic knowledge, but also the faculty to use improvisation as a strategy. In my experience as an artist, and from my observations of students working, this faculty can only develop by relying on instant reaction, rather than being bound by rules. Emotional identification with the subject, i.e. relinquishing control, is necessary to become one with the task. Further, the experience of each state requires taking a chance on everything going well, eliminating anxiety, finding the courage to throw oneself at the task, lowering expectations, being unafraid of making mistakes and trusting one's own feelings as a resource for action. Key to achieving both states is the individual student's awareness of two different ways of thinking when processing visual information-thinking which involves both sides of the brain. Certainly, an appreciation of the concepts of both flow and mindfulness can throw light on the issue of how attention may be used in different ways during the learning process.

A major challenge in teaching life drawing is trying to emphasise the essential role of the body in the process of perception. Since this applies equally to the field of design, the design student as a creator of conceptual sketches might benefit from focusing on the act of



observed drawing (particularly croquis drawing) in order to enter into states of mindfulness and flow. Finally, the reflections presented in this article invite the reader to consider the importance of achieving these states during the creative process—and, hopefully, open the way to further research in this fascinating field of enquiry.



References	Armstrong, P. (n. d.). Bloom's Taxonomy. Retrieved from <u>http://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/.</u>	
	Billeter, J. F. (2010). <i>Leçons sur Tchouang-Tseu</i> [Readings on Zhuang-Zhou]. Paris: Editions Allia.	
	Boyce, B. (2011). The Mindfulness Revolution. Boston & London: Shambhala.	
	Csikszentmihalyi, M. (1991). <i>Flow: The Psychology of Optimal Experience</i> . New York: Harper Collins Publishers.	
	Dewey, J. (1997/1938). Experience & Education, New York: Simon & Schuster Editions.	
	Komagata, N., & Komagata, S. (2010). Mindfulness and Flow Experience. Retrieved 7 February 2013 from <u>http://nobo.komagata.net/pub/Komagata+10-MindfulnessFlow.pdf.</u>	
	Roberts, J. W. (2002, Fall). Beyond Learning by Doing: The Brain Compatible Approach. The Journal of Experiential Education, 2002, 25(2), 281-285. Retrieved 7 November 2013 from http://kimberlysheppard.wiki.westga.edu/file/view/Beyond+Learning+By+Doing+-The+Brain+Compatible+Approach.pdf .	
	Sandqvist, T. (1995). <i>Hemlängtans bild: Essåer pågemensamt tema</i> [Homesickness picture: Essays on the common theme]. Stockholm: Carlsson.	
	Varela, F. J., Thompson, E., & Rosch, E. (1993). L'inscription corporelle de l'esprit: Sciences cognitives et experience humaine [The embodied mind: Cognitive science and human experience] (V. Havelange, Trans.). Paris: Seuil. First published in English by MIT Press (Cambridge, MA) 1991.	
	Wiese, J. H. E. (1998). Spontankompetanse: om hverdagsimprovisasjon og endringsglede [Spontaneous Expertise: About everyday improvisation and the joy to create]. Oslo: Norwegian Institute for Personnel Development and Administration.	
	Zakin, A. (2007). Metacognition and the Use of Inner Speech in Children's Thinking: A Tool Teachers Can Use. <i>Journal of Education and Human Development, 1</i> (2), 1-10. Retrieved 7 November 2013 from <u>http://www.scientificjournals.org/journals2007/articles/1179.pdf.</u>	



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