Chapter VI

Contemporary Ideas of Education

*The university is the place that is truly saturated with copies and copying.*

- Marcus Boon

In the previous chapter, the work of John Dewey provided an entry into education through an examination of some key ideas in philosophy of education owing to him. In this chapter, we give a summary background of the main ideas relating to our dissertation which are used to discuss contemporary education from the point of view of educationists, rather than philosophers. It is useful to introduce them at this stage after which we move into the concept of ‘meaning,’ as it underlies much of what we try to achieve in education, through the discourses of representation and semiotics. This also serves as an introduction to the key concepts which we use in the mimetic pedagogy outlined in Chapter VII.

There are two key and interlinked ideas which are current in education that interest us in terms of our dissertation: process-based education and self-directed learning, both of which are summarized below.

**Process-based Education**

All levels of education, from elementary education to university education are undergoing some soul-searching globally. Under the advent of new media technologies and the internet, which make a wealth of information available to student, there has been a huge decline in the importance given to ‘content-based’ education in quality Indian institutions, even though the old teaching style based on content may persist in the absence of any viable alternatives suitable to our contexts. This decline in content-based teaching is because of two reasons in the main: one, content-based education projects knowledge as a limited body of information which can be ‘learned’. This myth was demolished by the spread of the internet and the world wide web which conclusively showed that, in principle at least, the quantum of accessible information had exploded, making content-learning impossible. Two, the tendency had been to gain control of this body of information, largely through ‘rote-learning’, at the cost of other ways of
learning/knowing/thinking. It was projected that in this paradigm of content-based learning, young people who were products of such rote-learning, lacked some skills considered important for them to have. We have already discussed and challenged in the previous chapter this apparent conflict of ideas in rote-learning and innovation, especially in the light of Scharfe’s remarks on the contrast between Indian education system and the western one, as well as our own understanding of the role of memorizing in oral traditions, both in the west as well as in India.

Content-based strategies of teaching-learning in the Indian context, dependent on dictating ‘notes’ and regurgitating them in exams, were seen to be inadequate to the needs of a new global society, even while acknowledging the role they had conventionally played in large, heterogeneous classrooms and in mass testing through exams. Rather than being part of indigenous Indian cultural traditions which are drawn from oral knowledge systems, it is more accurate to understand that this teaching style arose in the context of colonial needs when education became more inclusive than it had been before, and is an obviously mimetic style (in the sense of education as a mirror) where students are expected to ‘reflect’ accurately what they have been taught by teachers. It is also premised upon the teacher as the ultimate source of authority about knowledge. Many believe that with the expansion of information sources, this latter assumption about teachers has been belied. Yet the evaluation systems continue to reward, by and large, the products of so-called rote-learning to the extent that many educationists believe unless the system of assessment itself is changed to one which does not test content-based knowledge, the scope for pedagogical innovations is limited, at least upto the high school level.

The clarification we make between the more ‘traditional’ systems of education and the ‘conventional’ ones which arose under colonization is an important one. As we have shown in the earlier chapter, memorization was an important aspect in traditional Indian systems of education, but to reduce memorization to rote-learning as a pejorative form of learning is not only false but also implies ignoring all the other kinds of pedagogical ‘techniques’ which were used in such systems and clearly and evidently gave rise to great bodies of knowledge, in medicine and astronomy for instance, as well as entire knowledge systems in the form of six distinct philosophical schools.

At the college and university level, there is more scope for innovations in pedagogy as more private universities come up. Even government colleges and universities which rely upon mass examinations only do so partially, as they too have some amount of internal assessment
which feeds into the final grading of students. Thus, although it is not a completely open field, there is some scope for innovations in pedagogy at this level. The deficiencies in the Indian education system framed in terms of inability to think, innovate, critique, have been projected as being due to ‘rote-learning’. Although this dissertation does not necessarily buy into such a reason for reasons already discussed, it does perceive the need for pedagogical innovations. This need has become manifest in recent times, particularly with the youth below thirty years of age set to be the largest age group in India by 2020 or earlier, as well as education becoming more inclusive thereby attracting more ‘first generation learners’ into higher education. Simultaneously, there has been a paradigm shift into valuing ‘process-based education’ which has occurred post liberalization, definitively in elementary education first, at least since the adoption of the National Curriculum Framework 2005.

Process-based education is having an increasing impact on the kind of critiques that education has attracted, both from educators and educationists themselves, as well as the larger public. While the focus of the argument made about lack of processing skills in elementary education was about the inability of schools and pedagogies to make knowledge more relevant to the lived experience of children, the slant of the same argument in higher education is about the failure of knowledge to be relevant to jobs. Without getting into the validity of this instrumentalist claim,¹ it can nevertheless be accepted that a number of young people are going through the higher education system without imbibing critical knowledge processing skills. It is another matter altogether that under the neoliberal regime that we function, corporates as well as larger society cannot afford to have ‘thinking labor’ as they might prevent the conveyer belt from functioning at all!

But the question remains: if content-based education, based upon some kind of limited and limiting pedagogy is to be devalued, then what shape can we expect process-based education to take? And what could it be based on? What theories could support such process-based education? In Europe, education theories arose only in the Renaissance (Durkheim 1977: 178). According to Scharfe (1992), such education theories did not arise in India, ‘[in]spite of the important role that that this “passing on” of the sacred tradition played in Indian society’ (Scharfe 1992: 6). Be that as it may, the catch phrase has been ‘information/content processing

---

¹ See Nayak 2014 for an analysis of the ‘false logic’ of the arguments surrounding such instrumental claims which has allowed the private sector to enter higher education.
skills’ namely the thinking skills required to negotiate the wealth of information now available to young people. If the paradigm of learning is to shift away from mere regurgitation of content, with all its proclaimed problems, then the pedagogy itself has to change so as to equip young people with the skills necessary to deal with information. This would include attention to imparting different kinds of thinking skills.

**Self-Directed Learning**

Another new catch phrase in education in the past decade has been ‘self-directed learning’. We will merely highlight over here the problems that it has attracted in the large classroom, especially in the context of the internet and new media technologies. The problem with encouraging self-directed learning is two-fold: at one level, it is to do with devising assignments and projects which will encourage students to explore the material themselves but in such a way as to inculcate a specific learning skill or educational objective such as critical thinking; the other is to do with assessing the material to see whether the learning outcome in the form of critical thinking has been achieved. At the stage that we are at in most universities and institutions of higher learning in India, curriculum development and syllabus revision is done by content experts and administrators rather than decentralized at the level of the educators themselves. Even in private universities, there is little scope, and no skill development, for systematically developing the curriculum at the level of the teacher.

This has meant that self-directed learning has involved giving random exercises which students are able to get off the internet, and faculty are constantly spending time on catching plagiarists. Presentations are now a matter of ‘copy and pasting’ material off the net and presenting them in class through a powerpoint, where no feedback is given in depth and again the assessment is of the content, not the learning skills gained thereof. While presentation skills are important for young people to cultivate, thinking skills are left under-evaluated. Thus, there is sufficient cause for alarm when the traditional pedagogy is replaced by self-directed learning leading to so-called ‘independent learners’, as this places an undue emphasis on students and absolves teachers of any accountability for teaching.

This echoes Dewey’s anxieties when his followers placed too much effort on ‘child-centric learning’ which he believed minimized content as well as the role of the teacher. This was part of Dewey’s educational philosophy - ‘experiential education’ – and was different from ‘experiential learning’. According to Dewey’s philosophy, efforts must be made to continually
link education to student life and experiences, as individuals as well as members of a society. Clearly, greater thought needs to be given to devising pedagogies which will not merely enable process-based learning but also self-directed learning by using a specific pedagogical approach based in mimesis as we show in Chapter VII.

What do we mean when we say ‘Young people don’t think’?

Even the brief exposition above reveals that one of the biggest fears confronting education is steeped in ideas of mimesis-as-imitation, namely that young people don’t think. In the larger arena of education, thinking skills are vaunted as a primary objective in education and primarily has to do with meaning-making or making sense of the world around us. Inasmuch as we learn language, we also learn through language. This view is so strong that some scholars are of the opinion that ‘language development is learning how to mean’ (Halliday 1993: 93). Yet, in mainstream culture, we hear people, especially teachers, say frequently that we want young people to ‘think’, implying that the state of ‘non thinking’ is possible, if not the actual and everlasting state of mind, a tabular rasa upon which thinking develops (or not) over time. It may be worthwhile at this juncture to explore what we imply when we say as teachers, employers and the general public, ‘Young people don’t think’. Do we suggest that they don’t ‘make meaning’? In the section below, we explore various formulations of what we could be suggesting when we say, ‘Young people don’t think’.

When we say, ‘Young people don’t think’ we may mean to suggest that they don’t think at all, that in fact, their minds are blank – which may also be indicative of a state of nirvana, if we want to see it in a positive sense. We could mean literally that their minds are blank, but we are confronted with the impossibility of this state, as cognitivists would have us believe that the brain is always active, constantly processing information from the environment at least, even when asleep. We may rather be implying that their minds are ‘passive’, in some sense, readily absorbing (or not) the curriculum that is transacted in the classroom. This is a more probable scenario and if we accept this as a possibility then we could also question whether learning is essentially an overtly passive activity - but covertly may involve a lot of reflection which though soundless, is actually active. We could simultaneously also be suggesting that this ‘passivity’ has more to do with deep kinds of socialization (as well as ‘traditional’ and ‘conventional’ ideas of ‘students’). After all, our larger culture is still emblematic of relations where young people are expected to be quiet and receive a lot before they participate more actively and overtly. This
cultural predilection for overt passiveness may be more acute in the curriculum transaction process.

Classroom practices being what they are - a two-edged sword, even as teachers expect a quiet and passive classroom (all the more easy to discipline and mould), they also create or socialize young people into becoming ‘passive’ and quiet receivers of knowledge, not questioners. This is not such an aberration as we make it out to be nowadays. It is in line with Caraka’s beliefs that students need to understand and assimilate knowledge first before they can be allowed to question it (Scharfe 2002: 44). Thus, it is possible that modern educators perceive students as not thinking simply because they are quiet when they may well be quietly (but mentally actively) reflecting on what they are listening to or because they are equipping themselves with knowledge before they question and respond. In educational philosophy, this would fall under essentialism where the mind is ‘the receptor and reflector of the antecedently given world… Through passive mentation, the immature learner not only absorbs the facts, practices, beliefs, rules and responses of those who, being mature, believe it is their duty to select them, but of even greater consequence, acquires the habit of absorption’ (Brameld 1956).

Another possible implication when we say, ‘Young people don’t think’ could be that they think like each other – and thus are in danger of becoming robots - and if everyone is thinking the ‘same’ thing then on what basis do we call it thinking at all? Even though we now understand that it is virtually impossible for people to think exactly like each other implying identicality, it is certainly possible for their thinking to resemble each others’.

We thus seem to suggest there must be something else involved in the act of thinking for it to be named as such: that the act of thinking involves an element of distinction – we could call it ‘originality’ in some fashion - some (as yet) ephemeral quality which makes my thinking different from yours. Otherwise we are like a 100-violin orchestra playing the same music together, which may be beautiful to the ears if we are playing a Bach concerto but it may not be so in terms of thinking. Yet, if we can consider 100 violins playing a Bach concerto together to be beautiful, is there perhaps some other dimension to identicality that we are missing out on?

When young students think like each other, and repeat the same things they have been taught either in speech or in writing, then we seem to think that this quality of resemblance or
similarity indicates that they have no thinking skills at all,\textsuperscript{2} or we don’t value it as thought. It is as if when thinking follows predictable lines then it is not thinking at all. It may even be denigrated as rote-learning. It is in contrast to this quality of ‘thinking like each other’ which in effect implies ‘not thinking’ that the idea of ‘thinking’ in its many avatars has been vaunted by scholars, educators, parents, and employers alike.

**Making Meaning versus Making Interpretations**

The above are the kinds of issues that propelled our work on pedagogical possibilities based upon the mimetic notion of repetition existing in the vernacular, where we bring in (the) making (of) interpretations as an important constituent of learning and our mimetic pedagogy. We had highlighted earlier on in this chapter whether when we say that young people don’t think we mean that they don’t make ‘meaning’? Here let us say that usually when we say making meaning of something, we mean to ask, Do students comprehend something? Are they able to make sense of what they read, hear or watch? However, we move to higher order thinking skills and when we say ‘make meaning’, we mean to suggest it is more open-ended; we mean, are they able to make ‘interpretations’? This is an important shift because of three reasons: one, making interpretations involves going beyond ‘comprehension’ as a learning goal as the latter is more focused upon a selection of one appropriate meaning out of several others. Two, by shifting the terminology to ‘interpretation’ and making it central to pedagogy, we directly use the inherent polysemous nature of signs, including visual and verbal ones in this case, to develop critical and creative skills among young people. Three, making interpretations demands active engagement from the individual student and opens up the possibility of diverse meanings as they go through the exercises together and individually. Fourthly, focusing on interpretations also implies that ‘readers’ of texts, whether verbal or visual, bring to it their own different social and cultural backgrounds, including gender differences. None of these four ideas are necessarily present in the phrase ‘making meaning’ which suggests one correct meaning, usually well-understood by the teacher and communicated to the students. In this latter paradigm, if the background of the teacher is different from the student, it is likely that most students will infer what Stuart Hall

\footnote{We use the words resemblance and similarity here because it is rarely identical in contemporary culture, unless it has been aided by technology (or in the case of oral traditions, through repetitive ‘locking in’ of material to form an internal storage system).}
(1973) referred to as a ‘dominant’ meaning that is received according to its interpretation via power structures. In the interpretationist paradigm, such differences are in fact, made possible and acceptable. They constitute what Hall referred to as ‘negotiated’ and ‘oppositional’ meanings and reveal the different backgrounds of the people making interpretations.

Lastly, although we do not mention it per se, our pedagogy is well entrenched in the ‘constructivist’ paradigm of learning. In the spirit of art and aesthetics which grounds this dissertation, we prefer to use the phrase ‘making interpretations’ to convey that the act of making meaning is an active one, it is also inherently polysemous, and encourages self-testing regarding the validity of interpretations.

We have seen the substantial, diverse and complex notions that are inherent in the concept of mimesis, including repetition as a vernacular notion which is presaged in memorization, as well as the ideas of intertextuality that were inherent in Roman mimesis. To categorically denounce memorizing, and even to judge rote-learning as a lower educational objective, is based upon erroneous understanding of the foundations of memorization and rote-learning, and reveals a poor understanding of the strategies of oral knowledge traditions themselves, as well as gives an undue emphasis to the written as we have discussed at length in the previous chapter.

We have briefly seen the concepts and principles in common currency in the discourse on contemporary education, namely process-based education and self-directed learning. After the discussion above, the question arises for us as to what kind of thinking can we teach young people which will help them process information? To select this, we now briefly summarize Bloom’s taxonomy of educational objectives and glance at Gardner’s idea of multiple intelligences. Bloom’s work enables us to select critical and creative thinking as suitable for teaching by locating them both in ‘making interpretations’; Gardner’s work enables us to move away from the dominant paradigm of reading and writing in higher education, which have a logic of their own, and creates a justification for teaching critical and creative thinking through visuals. The work of these two thinkers comprises our segue into education and gives the necessary background to build the mimetic pedagogy in Chapter VII.
Bloom and Gardner: Educational Objectives, Intelligence and Types of Thinking

Different thinkers, philosophers, educators and educationists have outlined the kinds of knowledge and thinking skills that are necessary to cultivate in young people through education. But aren’t we focusing excessively on one type of knowledge system over another by doing this? Especially in India, where institutions of higher education are mass education institutions, it is certainly much easier to deal with writing and mathematical skills than any other, especially as they lend themselves easily to mass and high-stakes testing. However, as we have mentioned above, while the system of evaluations change, teachers in higher education institutions still have options for innovation in classroom teaching as some amount of work is assessed internally.

To develop such an innovative pedagogy, based upon a novel concept of ‘pictorial mimesis’, we first draw upon Howard Gardner’s (1983) framework of multiple intelligences which posits that other than these two skills, there are at least six other skills that he characterizes as ‘intelligences’. These cross disciplinary, cultural as well as age boundaries. The list of intelligences include linguistic, logico-mathematical, musical, spatial, bodily-kinaesthetic, interpersonal, intrapersonal and naturalistic. Every individual is a unique blend of all the intelligences and teaching must be directed to empower young people to learn according to their strengths, rather than focus on two or three of the intelligences valued by the culture as a whole. Although framed in the language of intelligence, supporters of multiple intelligence aver that this points to the hitherto narrow definition of knowledge as concerned with only verbal and mathematical skills. They thus believe that by including all these ‘abilities’ or propensities under the rubric of intelligence, Gardner has successfully broadened the definition of intelligence and therefore knowledge.

Therefore, Gardner in a small way, allows us to move away from the verbal, logico-mathematical domains to another pictorial, spatial domain. Another reason for this shift is that pictures (in general visuals), demand a nonlinear logic for their comprehension, which we believe is an important skill to cultivate. When we look at a picture, we near simultaneously perceive all its elements.

The second body of work we examine is Bloom’s (1956) taxonomy of educational objectives which is considered a classic in education literature and many subsequent innovations derive from it. It is one of the earliest attempts to categorize different types of learning skills.
framed in the language of educational objectives and arranged in a hierarchy such that each level is subsumed by the higher level. The original framework divides cognitive skills that students need into six categories, namely:

1. Basic knowledge – memorizing facts, figures and basic processes
2. Secondary Comprehension – understanding and illustrating facts
3. Application – generalizing facts to other contexts and situations
4. Analysis – understanding why facts are the way they are; breaking problems down
5. Synthesis – making connections between different elements on one’s own
6. Evaluation – critically using one’s knowledge to ascertain the quality of information

While this framework has guided educators for decades, it was revised in 2000. The original one (Bloom et al 1956) is compared to the revised one (Anderson et al 2000) as depicted below:

Illustration 1


The major difference between the two, as far as our purposes are concerned in this dissertation, is the placement of creative thinking or creating right at the top of the new hierarchy. Yet, as the top three skills are non-hierarchical, this does not indicate that if one is able to create, one has
achieved all other levels of thinking. We can see that remembering is at the bottom of the hierarchy but is also a non-negotiable for learning. If a student can neither recall nor understand, then by according to Mayer’s framework mentioned above, no learning has happened.\footnote{However, by the criterion of other frameworks, recalling and understanding is equivalent to rote-learning.}

Memorizing is not mentioned as such but is implied in rote-learning.

The first three are hierarchical skills. Numbers 3 to 6 are considered higher order thinking skills that require ‘critical thinking’ but are not necessarily hierarchical (Bissel and Lemons 2006: 67). Going by Bloom’s taxonomy, we see that his framework is devised based on what should be achieved; that the higher order thinking skills require both knowledge and comprehension in order to be done correctly; that critical thinking is involved in analytic, synthetic and evaluatory skills. For instance, every time we use any of these skills such as break problems into components, make connections between components, or make a judgement about the quality of information, we are in fact, using critical skills. It is in this sense that our mimetic pedagogical framework in Chapter VII is devised for critical thinking. For creative thinking, we use the revised Bloom’s idea where to create implies putting elements together to form a coherent or functional whole, re-organize elements into a new pattern or structure.

While the hierarchy also indicates the acquisition of knowledge in particular stages, especially at the school level, at the higher education level (senior undergraduates and master’s level) perhaps it becomes difficult to separate these objectives. This becomes even more so in the case of visual work, where knowledge is not developed in any linear fashion but is learned and processed simultaneously. In a sense, visual work is a lot akin to tacit knowledge (Polanyi 1966). Hence, the demonstration of having achieved the higher level skills may be assumed to show that the other levels have been attained.

The Place of Assessment of Higher-Order Thinking Skills
Since in the current climate of education, no new claims about students achieving skills can be made without proof of achieving it through some test or the other, it is important to clarify at the outset that this pedagogy can be used for evaluation by the teacher in the classroom but whether it necessarily will be amenable to large-scale testing needs to be studied. Despite efforts to evaluate critical thinking skills reliably, it is generally acknowledged that assessing critical thinking skills is notoriously difficult and varies across assessors even of the same test.
(Grauerholz and Bouma-Holtrop 2003). Yet, Bloom’s taxonomy has been used in a variety of disciples and departments across the humanities and the sciences. For instance, an interesting framework was developed to assess critical thinking in biology at first year level in a premier American University (Bissel and Lemons 2006). Connie (2006) points out that although several modes of testing have been developed including surveys, essays and scoring rubrics, the single important variable in developing critical thinking skills is the disposition of the student.

Although assessment is difficult to device at this stage for the new pedagogy described in Chapter VII, based on our own experience using this pedagogy, we feel confident about its efficacy in classroom situations. Much more work would need to be done to develop a systematic evaluation of it. But for teachers to assess in the classroom, if students are able to demonstrate their ability to do the tasks of breaking down a visual into its component parts, show how the interpretation they make is justified by this deconstruction and also how its reconstruction can be done to make other interpretations possible, it is sufficient evidence that these higher order thinking skills have been achieved, going by the framework of Bloom’s taxonomy.

Despite sufficient empirical evidence in support of their work for a long period of time, Gardner’s theory as well as Bloom’s taxonomy has appealed to the imagination of teachers struggling to decipher what their larger goals should be. This is an important aspect of teaching-learning as, frequently, it is all too easy to get lost in the trees of everyday classroom requirements and miss the woods of educational objectives which ought to guide every aspect of education from devising the curriculum to transacting it and even evaluating its outcomes. While educational objectives perform an important task, multiple intelligence directs teachers to consider different media that may be suitable for learning abilities of different students, rather than focusing on the development of verbal (linguistic) and mathematical (logical) ‘intelligence’ both of which are dependent upon verbal media only. It continues to enter the classroom and teaching practices in other ways, particularly as evidence shows that people do have several types of intelligence at work within each of them. As Gardner points out, multiple intelligences reminds us that students will be served by this broader vision of education whereby teachers use a wide number of modalities to reach every child rather than those which were traditional in the classroom, such as verbal and logical intelligences.

Most importantly, if we change the modalities of teaching from those to do with reading and writing and the development of verbal-logical-mathematical skills, then we also need to
draw upon other knowledge systems which constitute knowledge differently than do the mathematical-logical-verbal systems which are linear in formulation as mentioned above. For instance, the latter systems tend to promote linear thinking and this is premised upon a particular kind of logic and rationality.

Thus, although we talk about them as discrete and distinct, it is immediately apparent that different kinds of thinking appear to be linked to each other in such a way that it may not be possible to do at least some kinds of thinking without reference to, including, or indeed at least achieving the other. For instance, is it possible to do critical thinking without conceptual thinking? It would appear not. Is it a false distinction we make between critical and creative thinking? Possibly, but this is not the whole story. Although philosophers get caught in the finer nuances of whether thinking is perception or conception, and what conceptual thinking actually is, and educationists get bogged down in the typology of thinking, educators need something far more pragmatic in the classroom. Bloom’s taxonomy of educational objectives has thus helped us address these kinds of questions regarding thinking framed in the language of educational objectives.

For the purposes of this dissertation, we use ‘thinking’, ‘skills’, ‘knowledge’ and ‘intelligence’ interchangeably. Keeping to the understanding of Gardner, it is important not just that we understand each individual is a blend of varying degrees of the different intelligences but also that as teachers, we must be cautious about not assessing positively those with linguistic and/or mathematical skills, and negatively those poor in these skills, even in a communications school. Perhaps young people also have different kinds of intelligences which are based on different kinds of logic and knowledge systems than the linear, ‘rational’ one. We must thus develop other kinds of pedagogies to enable different kinds of thinking to come to the surface as we do in Chapter VII, where we will return to the repetition and demonstrate its potential in greater depth. Rather than suggesting mind-numbing exercises done repeatedly like a physical drill, we demonstrate that repetition can be developed as a dynamic pedagogical tool based on semiotic concepts, within the larger framework of pictorial mimesis. For this, we need to move from ideas of meaning making to making interpretations through examining the idea of representation, as well as understanding what’s involved in making meaning through semiotics. We now introduce the idea of representation through a well-known story about Helen Keller.
Language and Cognition: Helen Keller
The life-experience of Helen Keller is well known from her biography, *The Story of My Life*, as well as from the published letters of her teacher, Anne Sullivan. As a child who became blind and deaf after a sudden illness, Helen lost her ability to speak and communicated with those around her in the most rudimentary pantomime. In a moving narration of her attempts to make sense of her teacher’s ‘finger play’ of what were words spelt on the palm of her hand, she describes how she mimicked the motions as a new game but didn’t make the connection between the motions and words, nor between the ‘finger-play’ and things. Helen describes how her teacher finally got her to make the connection, to cognize or understand the connection between the ‘finger-played’ words and the objects in the world by putting her hand under running water and tracing the word ‘w-a-t-e-r’ with her fingers on the palm of Helen’s hand. That instant when Helen suddenly makes the connection between words which she had been taught and objects in her environment is a Eureka moment for her as she had been unable to make this connection before. Suddenly the world opens up for Helen; each object in her environment has a word associated with it, a ‘name’. Reading about Helen’s experience makes us realize how much we take for granted about language and cognition. Her experience focuses our attention on the several connections that need to be made for meaning and meaning-making to occur.

Representation and Semiotics: Meaning-making
What Keller so beautifully described about her quest to understand and communicate is what happens in all arenas that we have discussed so far: what is it that we do when we communicate something through language, art, science, fashion, behavior, music and in fact, every aspect of human life. Stuart Hall (1997) points out that there are two processes involved in meaning-making which work together. The first ‘enables us to give meaning to the world by constructing a set of correspondences or a chain of equivalences between things – people, objects, events, abstract ideas, etc – and our system of concepts, our conceptual maps. The second depends on constructing a set of correspondences between our conceptual map and a set of signs, arranged or organized into various languages which stand for or represent those concepts’ (Hall 1997: 19).

---

4 Keller and Candice Ward, Dover 1996. Also see digital version: http://www.afb.org/mylife/book.asp?ch=P1Ch4
5 http://www.afb.org/mylife/book.asp?ch=P3Ch3#7
Helen lacked both the required processes and had to learn them before she could get involved in meaning-making or representations.

Thus, it is the relation between the world out there, (ie ‘things’), our categorization of them (ie ‘conceptual maps’) and the signs we use to talk about them which together constitute meaning-making. The process which links these three together is what we call ‘representation’. This is also the term by which mimesis is generally referred to post Enlightenment, as we saw in Chapter II, when the shift in terminology occurs as a result of the decline in the need for resemblance and an increase in representations which connect in ways other than similarity.\(^6\)

Symbolic representations which bear no similarity to the signified and are arbitrary are instances of nonsimilar representations. For example, a rose as a symbol of love, or abstract artistic representations of a theme, or even mathematical symbols. There is another way in which we use representation as, for instance, we may refer to the way theatrical mimesis represents life and call the dramatic product or play itself a representation. Representation is thus a term which acts like a noun as well as a verb. As a noun it refers to the objects of representation itself; and as a verb, it refers to process of making a representation. Thus, when we make a commercial which involves women, we are making a representation (noun) – the commercial itself, but we are also representing them as something (verb) – in their roles as wives, mothers, professional women or, indeed, students.

In broad terms, representation refers to ‘ways of conceptualizing, organizing, and arranging signs, concepts and their relationships’ (Hall 1997: 17). We immediately see the close connection with mimesis-as-copia where the focus in rhetorical mimesis was on inventio, dispositio and executio. We also see how representation or mimesis as representation is premised in turn upon semiotics. This occurs visibly in language but is also at work in all kinds of communication, including the ones which do not depend upon words such as architecture, dance, music and food, and can be understood via semiotics. As the Austrian linguist Ferdinand de Saussure (1857-1913) emphasized, the relation between words and things is arbitrary (Culler 1986: 28). Once the relation is constituted, the word and its meaning is followed as a matter of convention. It is only when codes have been ascribed to the world of objects and people, quickly becoming a matter of convention, that language appears ‘transparent’ and ‘efficient’. However, this latter is not fully true because it hides the highly codified way in which language works. For

\(^6\) See Webb (2008) for a thorough understanding of the myriad ways in which representation is used.
example, the object outside the window is given the name ‘tree’; subsequently, every time we see this object, it must move into the conceptual map, get categorized (re-cognized as being ‘that’ object) and only then does it evoke the sign word ‘tree’. This complex process happens in seconds for our ordinary usage of words we use and hence we are able to communicate effectively and efficiently. But precisely because of this, we forget that language is arbitrary and the codes which govern meaning-making must be learned from infancy.

The above description of the way signs work suggests however that words are used to simply designate concepts but ‘a language does not simply assign arbitrary names to a set of independently existing concepts… It sets up an arbitrary relation between signifiers of its own choosing on the one hand, and signifieds of its own choosing on the other’ (Culler 1986: 33). It is in this sense that one of the most important consequences of the arbitrary nature of the sign arises - for Saussure, meaning is relational (Culler 1986: 33), not referential. We shall further develop these ideas in the sections below.

**Background for Building a New Pedagogy**

Conventionally, critical thinking in the social sciences and communications is taught by using theoretical frameworks, for instance Marxist or feminist theories, in order to create critical perspectives among students. In the case of visual data, these theories have limited applications but have been widely used (see Fiske 2011, chapter 9). What is usually taught in India is the theory and not their use in applications and analysis of visuals. The Marxist and feminist theories tend to be very general in their analysis and their claims, and are therefore hard to teach in their specificities. Discourse, narrative and rhetorical analysis move away from the visuals themselves, focusing rather on the construction of narratives of grand themes like ‘nation’, ‘woman’ or even ‘womanhood’, \(^7\) admittedly though with some supporting semiotic evidence.

Thus, students may move intuitively from theory to applications in visual material or they cannot. To our mind, developing a conscious pedagogy for visual material based on these theories has limited value as the theories themselves limit their application. The other methods of doing visual analysis is through film aesthetics and criticism which, by and large uses theories of art, (such as formalism etc) which are like art appreciation courses, drawing one’s attention to

---

\(^7\) See work by those working in cultural studies such as Tejaswini Niranjana, Madhav Prasad, Lalitha et al.
the way lighting has been used or how camera positions affect meaning. None of these methods involve teaching critical thinking per se.

Some scholars, particularly Barthes (1973) Stuart Hall (1997) and John Fiske (2011/1982) have paid attention to visual analysis using semiotics in particularly applied contexts, giving rise to an important body of work in communication and cultural studies. Most importantly, although semiotics has been used more extensively in visual analysis, it has not been used directly in the teaching of critical and creative thinking via mimesis. We propose to extend the conceptual work of semiotics so that they can be developed into simple yet powerful tools of pedagogy of critical and creative thinking within the framework of mimesis.

We assume a larger understanding of semiotics and semiotic concepts and only briefly describe them here for purposes of explicating their basic conceptual idea as it relates to classroom teaching of critical thinking with the use of visual material. Thus, although it is acknowledged that each of the concepts used has a much larger and more complex formulation, we simplify them to convert them into tools of teaching, although our understanding is informed by the complexity of its original formulation. This is similar to the case where one separates concepts, such as mind and body, which are intrinsically linked, for heuristic purposes. We believe that the use of these methods teach the mind to think critically and creatively about visual material in a novel way. They are also uniquely based in constructivism and mimesis as we shall see in Chapter VII.

**Basic Semiotic Concepts**

Semiotics, most generally speaking, is the ‘science of signs’ (Cobley 2010: 322). When one word/thing/visual stands for or refers to something else, and is understood by another to be such, it is called a sign. For example, the word ‘bird’ refers to an object ‘bird’ which exists in the real world and English speakers understand it as such to refer to ‘a creature which flies’; similarly, a drawing of a bird stands for the object bird which exists in the real world. This relation between word and object is arbitrary in most cases (Some people think that onomatopoeic words are an exception but that is not accepted by everyone as clearly even here, the words used depend upon the language spoken). As explained above, once this arbitrary connection between object and word (via the conceptual map, as explained before) is made, the word becomes a vehicle for

---

8 See Culler, Jonathon (1986) for an exposition of the complexity underlying Saussure’s ideas. Also see Cobley, Paul (2010) for an overview of the breadth and depth of semiotics in various fields.
communication through standing as a short form, or a code or a sign for the object referred to. Language, including visual language, thus represents reality through codes and signs.

Having understood the arbitrary nature of the sign, and now need to move to learning. A look at how this encoding-decoding happens so that a child learns the signs is warranted.

• Experience and teaching/learning will enable us to code and decode eg a child learns the semiotic system of words through constant repetition.  
Eg: “This is a bird”…. “What is this?” “Bird”

• More important, child learns to use words to refer to things even when they are not there.  
Eg: Q: “Where is birdie?”  
A: “Birdie gone to sleep”

Coomaraswamy extends this semiotic understanding to objects in his theorizing of semblance in the visual arts. ‘Just like a word can be a sign of someone or something which is absent, even an object can serve as a reminder’. It is in this sense that an object used by someone is adequate for us to remember him. For example, the throne or the Pipal tree also serve as reminders of Buddha (Coomaraswamy 1945:65). Similarly, round, framed spectacles would have reminded a certain generation of Gandhi; now the reminder may be equally for Harry Potter for another generation.

Signs, and therefore words and pictures as signs, allow us to speak in absence and it also serve to remind us of the bird. The semiotic property of words also helps in the formulation of conceptual maps; firstly, by linking things to words, secondly, by allowing us to speak of things in their absence and thirdly, by allowing us to use one word to stand for multiple things as in common nouns, or ‘categories’. (Imagine: otherwise we would have as many words in the world as things - all chairs would be called by different words, much like proper nouns, and we would be unable to communicate!) Decoding signs thus also correctly reflects upon our ability to understand different types of chairs as belonging to the category ‘chairs’ including an abstract/artistically designed object to sit on which we see for the first time. Similarly, we are able to categorize different types of hair (curly, wavy, straight, red, blond, black etc) as belonging to the category ‘hair’.

Thus, language as a semiotic system uses words which are themselves signs, referring to objects in the world. This is called the reference theory of meaning which we will refer to again
later. But for now it is important to note that words ‘imitate’ things in the world (as the birdie example showed) as much as paintings and theatre. They also stand as substitutes for them.

Lastly, decoding linguistic signs indicates our ability to interpret language ‘correctly’ and also make inferences, estimates and connections. Much of the time, fluent speakers of the language do this interpretation easily, not only because of language skills but because of cultural familiarity; non-fluent speakers (usually, but not always, second language speakers) may misinterpret and create problems. When my grandmother shifted from a small village in Karnataka to Hyderabad, a neighbor on opening the door said, ‘Randi! Randi!’ My grandmother was flummoxed as ‘randi’ in Konkani means prostitute! But we ‘read’ signs easily because we have learned them through a combination of experience and learning, so we can usually decode accurately, depending upon our tacit ability to pull together other factors like tone of voice, prosody etc. My grandmother quickly realized that no smiling woman would have used a friendly tone of voice and hand gestures inviting into her house if she meant to call her a prostitute. The cultural codes helped her interpret hand gestures and decode the utterance correctly.

Thus, semiotic systems are the foundations of all representation and representative practices, and essentially these semiotics are social/cultural in conception. As Webb notes, ‘[a]s soon as people began to communicate, they began to make representations – to use signs that stood in for the things being discussed. But how they figured and understood the relationship between the concrete thing and its sign has differed over human history’ (Webb 2008: 25).

Different people, such as CS Peirce, Ferdinand de Saussure, Charles Morris and Roland Barthes, have analyzed how signs actually work. In this exposition, we are only focusing on those semiotic concepts which have pedagogical value for us, regardless of their origin. In our framework, we focus on the conceptual work of Saussure and Barthes. Since we follow both Saussure and Barthes in the conceptual framework, the concept of intertextuality which is not a semiotic concept per se, is also added. Saussure whose work shows that meaning is formed not through reference to something ‘outside’ (reminiscent of mimesis-as-imitation) but relationally, through differences of a certain kind, is also premised in intertextuality where meaning doesn’t reside outside the text but is shaped and influenced by its relation with other texts. Intertextuality is thus another of the relational concepts of meaning-making, opening it out to interpretations.
Saussure’s important contribution mentioned above was a consequence of his understanding the arbitrary nature of the sign, namely that meaning is relational and owes to differences between what he called associative categories. The idea of difference as a distinguishing feature was used as way to challenge what is called the reference theory of meaning, namely the argument that words refer to objects in the world and this is the source of their meaning. This is clearly a mimetic theory of meaning in the sense that once the conventions are established as to which words stand for which objects, the words re-produce the objects for us and represent them. Saussure rather than saying that meaning resided in objects outside which words referred to, suggested that meaning resided in the difference between two elements/signs in a system. Thus there are two basic theories of representation for making meaning which are germane to our work:

1. through reference of the sign to something outside in the world
2. through the relationship of the sign with other signs

Both these ‘theories of meaning’ work quite differently to convey meaning. For instance, the meaning of the word ‘tree’ according to the referential theory of meaning is through its correspondence with something that exists in the real world. Thus, the meaning of the word ‘tree’ resides in its similarity to something out ‘there’. Saussure’s genius was in changing this around to say that the word ‘tree’ gets its meaning, not from its correspondence/similarity with an object ‘tree’ but from its relation to other things in the same horizontal axis (contiguous objects). This relation is one of ‘difference’. But meaning of a term was derived not just from contrasting relations but also what he called ‘combinatory’ ones, such as those derived from what preceded and succeeded it in a sequence (Culler 1986: 60). This was later called syntagmatic relations by Jakobson (Cobley 2010: 188). Here it suffices to say that due to this kind of thinking, the meaning of the word ‘tree’ resides in its difference from other contiguous objects such as bush, plant, sapling etc. which together form what Saussure called ‘associative relations’ (Culler 1986: 59) and Jakobson called ‘paradigmatic dimension’ (Cobley 2010: 188). While the referential theory of meaning is clearly mimetic, we shall find that even the Saussurean theory of meaning is a mimetic one. This theory of meaning shares great similarity
with the Buddhist *apoha* theory which also argues that meaning is not fixed in the objects but through difference.

Such ideas of the social construction of meaning, semiotics and their importance to representation were new ways of thinking about meaning. As one can imagine, it was proper for a linguist to propose that the production of meaning (meaning-making) depends upon language. Language is a system of signs and they function as signs, according to Saussure, only when they communicate ideas. In other words, language and the signs it uses, can serve as an effective means of communication only when they are a part of a system of conventions, i.e. they are shared codes.

**Importance of Saussurean Semiotics**

There were some important foundational ideas posited by Saussure: one, the arbitrary nature of the sign, namely, ‘there is no natural or inevitable relation between the signifier and the signified’ (Culler 1976: 19). An important corollary to this assertion was developed by Saussure himself: meaning does not reside on the signs themselves but in the difference between the signs. In the example of a chair, meaning comes not because it refers to a chair, but because the word ‘chair’ as a sign is different from a bench, a table, a bed etc. Signs therefore do not work by themselves as we think they do but they are essentially parts of a system of other closely related signs.

The second important idea that Saussure described was that every sign is comprised of a signifier (the material object, person or in general, form of something) and a signified (the idea, concept with which the form was associated). For example, ‘the material object with four legs’ is a signifier and the concept which it is associated in our mind is ‘something to sit on’ is the signified. The signifier and the signified together constitute the sign ‘chair’ for Saussure.

The last idea we owe to Saussure is that although the relation between the signifier and signified is arbitrary and fixed by convention, it is also not permanently fixed but a changing feature of time. The word ‘gay’ is a good example of this. Thus, all meanings are historically and culturally produced and there is no fixed universal meaning for any sign. Hence meaning-making and representation is open to constant play or slippage of meaning, in other words, Derridean iteration. A corollary of this is that all representation is also open to interpretation and re-interpretation.
The idea that there had to be a system of shared codes existing at a point in time for meaning to be made, enabled the idea of intertextuality which also depended upon the existence of codes. The polysemous nature of utterances and their dependence on codes in its own way also enabled intertextuality in the form of parody, satire, irony and the like.

**Denotation, Connotation, Intertextuality**

As we have understood so far, decoding of signs gives us meaning and meaning is ascertained through both paradigmatic and syntagmatic relations. There are two levels at which meaning is located according to Barthes (1915-1980 CE) who came much later than Saussure but worked with his basic framework and transformed it – a mimetic achievement! We use his distinction here first as it is the basic level in our pedagogical framework. Barthes’ work is important because he took Saussure’s linguistic ideas into the wider culture and applied them to generate a deeper understanding of how meaning and interpretations worked. He fine-tuned the way signs worked as representations by delineating two different levels they worked at: the first was merely recognizing the sign by identifying the signifier and mapping it onto a signified. This literal level of meaning-making was termed ‘denotation’ by Barthes (Fiske 2011: 80) and in our framework becomes mimetic meaning.

The second level was when the sign was linked to other, broader, cultural themes, emotions or abstract ideas. Hall gives the example of jeans (Hall 1997: 38). Denotation involved looking at this item of cloth, identifying it as something to be worn and associating it with the mental concept of trousers to be worn. This was only meaning making at a denotative level, for Barthes. Linking jeans to other cultural ideas, concepts, meanings such a freedom, casualness, youth, hard work etc made meaning happen at a connotative level. A similar example can be made of handloom in India which clearly has different associations than wearing mill cotton or even synthetic material. Understanding the connotative level of meaning from our experience is something that needs to be taught by bringing in the ideas of association and makes visual understanding more complete and robust. In simple terms, ‘denotation is what is photographed; connotation is how it is photographed’ (Fiske 2011: 81).

When we use language we also use linguistic devices which enable us to say one thing although we mean another. Analogies, metaphors, similies, irony, sarcasm, punning, satire, parody are all connotative because they depend upon interpreting the how of what is said. But their correct interpretation depends upon an understanding of the codes which govern them as
pointed out in Chapters II and III. But they are also intertextual when they are deliberately encoded as saying one thing but meaning something else as our understanding of the codes of reading another ‘text’ or utterance or sentence influence the way we read this one. We explain this in more detail a bit later using Riffaterre’s work. Depending on how the sentence is said, the same thing can give rise to different interpretations. For example, ‘she is a real cat’ need not refer to the animal ‘cat’ but makes a connection between ‘she’ (a woman) and the qualities of a cat – slinky, vicious when stepped on, independent, selfish. Parody, according to Linda Hutcheon in her A Theory of Parody (1985), ‘always features an author who actively encodes a text as an imitation with a critical difference.’ Signs also allow us to communicate through similes, metaphors and other devices. For example, ‘I hope you have a blast at the party’ invokes the qualities of a blast to say something about the party they are going to. Simile, metaphor and metonymy are powerful rhetorical devices, dependent upon shared codes and crucial to the formation of essentially mimetic genres like satire and parody which are intertextual genres.

Thus looking at the various levels and ways in which meaning is encoded, it appears that meaning seems to be something that cannot be irrevocably fixed and therefore belongs to the domain of interpretation. Rather than making meaning present itself through a naïve mimesis, people construct meaning through an understanding of codes and contexts. Re-stating Saussure and focusing on the paradigmatic plane, Halliday says, ‘meaning is choice in context’ (Cobley 2010: 231). It is in this sense that Riffaterre (1984) remarks that representation is interpretive rather than (only) referential. He argues that even when the representation is devoid of content (and therefore referentiality is low or non existent) yet it is possible for evaluations and therefore meaning to be made. He suggests that this is because meaning doesn’t happen with referentiality but between two codes. When an author uses puns, parody or satire in her writing, not only is this dependent on intertextuality, but, according to him it serves as a hermeneutic device as the words used no longer have a reference to reality but ‘are puns and word-plays indicative of equivalences between codes, between the bucolic convention and the satirical one’ (Riffaterre 1984: 158). From our point of view, this is clearly Latin imitatio as we have seen in Chapter II: Mimesis is thus between codes, not between the presupposed reality and its representation but between the codes of one representation and the codes of the other. The verisimilitude of the descriptions gain significance because of their intertextuality, not because of the features of referentiality.
Responses to Saussurean Semiotics

Although the above semiotic understanding of meaning-making and interpretation sounds very convincing there have been critiques of it. However, we do not go into these critiques as we are interested only in engaging with these concepts to the extent that they can be used in the classroom. Derrida, for instance, points out that Saussure’s simple binary does not and cannot produce meaning and instead meaning is a product of endless interpretation (signs pointing endlessly to other signs). Saussurean difference becomes Derridean *differance* which plays on the eternal deferment of difference. This *differance* is emblematic of postmodernism.

Foucault too does not go along with Saussure and Barthes in terms of signification as he finds that restricting meaning only to language does not make sense as it is a closed and static system. He wants to locate meaning in knowledge, that is in actual social practices and power, as he posits that at every given time in history, some people spoke more than others as they were more powerful. He gives the example of male doctors speaking about ‘mad’ female patients in the late nineteenth century. For him and others, models of representation need to factor in power and knowledge. He does not deny that objects exist outside discourse, accepting this is trivial for Foucault who sees them co-constituted by discourse. Thus, objects get constituted by various discourses in which they are embedded. The meaning of these objects, for Foucault, does not exist outside of discourse. Thus, for example in *The Birth of the Clinic* (1973) he talks about how the homosexual, the mad and hysterical woman all existed in one form or the other but were produced as such only as the result of a collusion of discourses surrounding it around the nineteenth century. Foucault, we can say, looked at the production of knowledge through what he called discourse and made ‘relations of power’ more central than ‘relations of meaning’.

An important point to understand in both representation and semiotics is that there is no neutral observation, and Foucault supports this view. In an earlier chapter, we had mentioned that Dewey had pointed out in his critique of Locke that there is no dualism between mental faculties and subject-matter; one is never only observing but observing something. He thus located skills gained in their specific contexts. Foucault similarly believes that there is no object other than one constituted by discourse. Others believe that each observation is intrinsically underpinned by an epistemology, leading to the famous debate in philosophy of science on facts being ‘theory-laden’. The epistemology may be a simple one separating the self from the world,
or one which sees no disjunction. Thus, in some Indian epistemological theories there is no ‘pot’ that is seen without seeing where it is located. Thus, ‘pot’ is always pot-on-the-ground or pot-on-the-table, what is called context-specific knowledge.

Slavoj Zizek makes an important point in relation to this in terms of ideology rather than epistemology: ideology for him ‘is a generative matrix which regulates the relationship between the visible and the non-visible, between imaginable and non-imaginable’ (Zizek 1994: 1). For instance, feminist ideology will always see a woman in a visual wearing revealing clothes as an instance of the objectification of the woman’s body.

While not denying the validity of each of the above points, we reiterate that we are working within the semiotic tradition, not the discursive one and at this point they are of little interest to us when we are developing the basics of a visual pedagogy based on pictorial mimesis. As we develop this pedagogy from the current indicatory one, it may well turn out that this is an untenable separation. In our framework, we use intertextuality to show the connection between codes of different genres being of significance rather than (only) referentiality. Also, the idea that intertextuality is hermeneutic as it depends on codes of interpretation, is important for our framework. It is not insignificant that it has been pointed out that there is latent intertextuality at work in every act of meaning-making as when one scholar argues that ‘[Both] are signs which have the primary function, at the level of significance, of telling the reader there is a latent intertext at work’ (Riffaterre 1984: 148). Riffaterre suggests that finding the meaning of the text resides not in the verbal context nor in deciphering the idiolect of the author but in the intertext, which he defines as ‘a corpus of texts, textual fragments, or textlike segments of the sociolect that shares a lexicon and, to a lesser extent, a syntax with the text we are reading (directly or indirectly) in the form of synonyms or, conversely, even antonyms’ (Riffaterre 1984: 142). He goes on to say, ‘intertextuality necessarily complements our experience of textuality. It is the perception that our reading cannot be satisfactory without going through the intertext. It will not signify unless as a function of a complementary or contradictory intertextual homologue’ (Riffaterre 1984: 142-143).

The above ideas have important repercussions in terms of pedagogy because it points to a significant way in which mimesis can be seen as being intertextual rather than referring to an external reality; secondly it shows how intertextuality is always hermeneutic and therefore so is
mimesis. Thirdly, it can be used as the basis for developing a pedagogy and fourth, it can be extended to visual work with great profit.

The pedagogy that follows in Chapter VII is teacher-centric rather than learner-centric in direct opposition to the current trend of making everything in education learner-centric. We do this for several reasons: in the Indian context while a lot of work has been done in the development of research in pedagogies for school children, the research in pedagogies in higher education are fewer. It is assumed that teaching at the university level is a matter of content of one kind or the other, and reading volumes of material (and writing pages of ‘assignments’) is the best way to get that content. Monotonous lectures repeated over years through the same ‘notes’ are many teacher’s idea of teaching. Now, of course, there are ‘power-pointed notes’. Teaching at a higher level is similar, at one level, to teaching at the school level, but it is significantly different too as we are dealing with a different age group developmentally.

Much work is required on developing different pedagogies for cultivating thinking skills, especially those which are not dependent upon sophisticated verbal language, as the current trend of inclusiveness promises to continue, bringing a large number of first-generation college entrants as well as students who have only rudimentary reading and writing skills in any language, not just in English.

**Summary**

This chapter was an important one to segue into Chapter VII where we develop an indicatory mimetic pedagogy. It began with two key ideas of contemporary education, namely process-based learning and self-directed learning and revealed that in order for them to be successfully achieved, students need more facilitation through the development of innovative pedagogies. Especially important to cultivate in this context are thinking skills, which we saw detailed in the education discourse of an important framework, namely Bloom’s taxonomy of educational objectives. We have selected the higher order thinking skills as worthy of being taught through a mimetic pedagogy. We outlined the basics of representation and meaning-making through the use of semiotics, which latter will also play an important role in the mimetic pedagogy. By introducing semiotics and intertextuality, it is also possible to shift from meaning making to making interpretations as a more open-ended, relevant and active way to process knowledge, as we intend to show in the next chapter.