ARTICLE

Building knowledge through arts integration

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ABSTRACT

Educational research has shown the importance of adopting a multimodal approach to pedagogy by combining, integrating, and organizing diverse semiotic resources for learning. As aesthetic content and forms are significant aspects of multimodality, arts integration is crucial to achieve multimodal knowledge practices. In this paper, we develop a conceptual framework for analysing, discussing, and designing arts-integrated processes of teaching and learning. The framework integrates a social semiotic theory of multimodality and the Legitimation Code Theory of Semantics as a methodology through which teachers may avoid segmental learning practices in favour of an arts-integrated cumulative pedagogy. In this way, multimodal approaches to text and context relate to a social realist view on knowledge building, where boundaries between knowledge practices are weakened and meaning is condensed through processes of cumulative learning.

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Introduction

Devoting an issue of this journal to arts integration implies that the arts are not yet satisfactorily integrated in general pedagogy. The underlying questions are: "Why are the Arts not integrated?", "Why is it important to integrate the arts?", and "How may teachers' work towards increasing arts integration?" We will address these matters in relation to the concepts of curriculum-making, multimodality, and semantics.

Contemporary research outlines many reasons for the benefits of incorporating the arts (i.e. music, drama, visual art) in general pedagogy. The arts may be regarded as a second language or forms of aesthetic representation that have self-evident legitimacy in multimodal and transdisciplinary approaches to knowledge and education (Marshall, 2014; Martin, 2017; Perry, Wessels, & Wager, 2013; Wandera, 2016; Webster & Wolfe, 2013). Aesthetic aspects may be important for making interconnections between subjects and "to investigate the unknown and re-evaluate what is already assumed to be known" (Webster & Wolfe, 2013, p. 23). Researches have also stressed the importance of aesthetic teaching and learning as aspects of pedagogy characterized by communicative interactions, experience-based learning, embodied knowing, and culture-oriented prepositions (Eisner, 2004; Hobbs, 2012; Leonard, Hall, & Herro, 2016; Sotiropoulou-Zormpala, 2012; Uhrmacher, 2009).

There is a widespread assumption that training in the fine arts has positive effects on learning in other areas of knowledge (see Winner, Goldstein, & Vincent-Lancrin, 2013, for a critical overview). Whether or not this is true is an issue of great importance to policy makers and researchers in various disciplines and in differing locales; but, it is less relevant for teachers and their classroom practices. Teachers are unlikely to be guided by theories of students' intrinsic mechanisms of transferring skills from one domain of knowledge to another. What teachers need are conceptual toolkits for analysing, evaluating, discussing, and planning their professional practice. In this paper, we have sought to develop a theoretical, although practice-oriented, framework based on Legitimation Code Theory (LCT) (Maton, 2014). LCT integrates insights from sociology, linguistics (SFL), philosophy, and other related disciplines, for conceptual frameworks of education and knowledge building across diverse social knowledge practices (LCT, 2018).

Following a discussion of the curriculum and how it is made up of prime and relatively autonomous subject areas, the underlying principles of curriculum-making are viewed as frames that must be weakened if the arts are to be integrated. Multimodality is then proposed as the key to arts integration. Multimodal approaches to pedagogy presuppose that successful teaching incorporates different modes of communication, including artistic expression and aesthetic experiences. Thereafter, a semantic approach to learning will widen the educational significance of arts integration. Finally, we will explore practice-oriented examples and their implications, particularly in the field of music. An arts-integrated approach to teaching and learning makes use of similarities, differences, and variations among disciplines and subject matter in order to allow processes of cumulative knowledge building.

The curriculum and the issue of autonomy

To understand the challenges of arts integration, the principles that underlie curriculummaking and the organization of pedagogic practice must be considered. When, for instance, visual or performing arts are transposed from the gallery or stage and relocated to a school, these artistic knowledge practices are decontextualized from their native social locus (gallery or stage) and placed into a school setting as imaginary, socialsymbolic practices. This institutionalization involves a discursive gap that teachers and policy makers will need to bridge to bring about a broader potential of meaning (Bernstein, 2000). The recontextualization of knowledge and meaning thus raises issues like "What content is most conducive to facilitate?", "How should such content be organized?", and "What goals can we achieve through this kind of organization?"

Curriculum-making and processes of conveying knowledge through teaching are regulated by conventions that govern how knowledge is classified and correlated: some areas of knowledge will be integrated with each other, whereas others will be made distinct, i.e. science, social studies, language arts, and fine arts. The principles underlying the classification of knowledge illustrate the fundamental problem of integrating the arts as typically, academic knowledge and curricular content are usually segmented by the division of subjects; a curriculum is made up of a series of separate disciplines. There is no incentive to integrate objects and knowledge practices from diverse contexts into cumulative knowledge building (Maton, 2014). Problems arise if boundaries between school subjects are so strongly drawn that they only allow introspective approaches. In addition to the socially-produced and maintained compartmentalization of school subjects, there is commonly an arranged insulation between teachers of the fine arts and non-arts teachers. Thus, a school enforces a series of relatively autonomous disciplines and, correspondingly, distinct categories of teachers. School subjects comprise constituents (e.g. objects or ideas) and organizing principles (e.g. teaching and ways of organizing sites of learning) arranged in particular ways (Maton, Howard, & Lambrinos, 2016). Such relationships can be described in terms of stronger or weaker positional and relational autonomy by which various modalities of arts integration may be defined, such as when non-arts subject matter is taught with or through the arts; or vice-versa, where diverse disciplines are used for teaching the arts (Maton et al., 2016; cf. Goering & Strayhorn, 2016; Lindström, 2012; Sotiropoulou-Zormpala, 2012). If arts integration has to become a significant part of general pedagogy in all school subjects, the autonomy of disciplines and the relative boundaries between school subjects need to be made less rigid.

Weakening boundaries

There has been a long international tradition of justifying arts integration based on theories of transfer. It is said that the arts will increase language skills, enhance performance in mathematics, and boost test scores in general (An, Capraro, & Tillman, 2013; Cunnington, Kantrowitz, Harnett, & Hill-Ries, 2014; Greenfader & Brouillette, 2013; Walker, Bosworth McFadden, Tabone, & Finkelstein, 2011). As such transfer theories are based on correlation studies and experiments whose outcomes have been mixed, it is dubious to maintain that training in the arts will enhance academic performance (Sala & Gobet, 2016; Winner et al., 2013).

Arts integration matters, but not for instrumental pragmatic reasons alone. At the same time theory, while of interest on a societal level, is less significant to a teacher's classroom practice. What is needed is a conceptual toolkit for transforming teaching with regard to cumulative knowledge building. Besides the issue of relevance, there is the epistemological difference of significance. Theories of transfer assume processes of movement between different domains of knowledge. Such an approach results in transfer studies that seek underlying mechanisms of the intrinsic transfer of skills from one domain of knowledge to another. Thus, transfer approaches rest on the pedagogic discourse of a horizontal knowledge structure, where knowledge is considered a series of specialized and separated languages (Bernstein, 1999). A cumulative approach to knowledge building, on the other hand, is oriented towards way knowledge is built up *vertically*, i.e. where there are processes of integrating entities into greater propositions and abstractions (Bernstein, 1999; Maton, 2014). Figure 1 illustrates different perspectives on knowledge as presented by Bernstein (1999, p. 162).

Subject areas and school knowledge are based on segmentation, with knowledge classified and compartmentalized and circumscribed by boundaries between different kinds of content and form. When perceived from the view of cumulative building, knowledge is still seen as divided into disciplines, but the teacher's role is now to integrate that content without blurring the singular characteristics of its components. Furthermore, while studies in the field of transfer seek psychological mechanisms that drive individuals, a social realist approach (Maton, 2014; Maton, Hood, & Shay, 2016) focuses on the agents and processes operative in such knowledge practices as public education.



Transfer between horizontal domains of knowledge Cumulative learning

Figure 1. Horizontal and vertical knowledge structures (cf. Bernstein, 1999, p. 162).

The approaches of cumulative knowledge building and arts integration share the common denominator of an *integrating code* by which boundaries between knowledge practices and school subjects are – or should be – relaxed or taken down.

Integration [...] refers minimally to the subordination of previously insulated subjects or courses to some relational idea, which blurs the boundaries between the subjects (Bernstein, 1975, p. 93).

Weakening boundaries between knowledge practices allows a more holistic approach to teaching and learning that facilitates meaning-making and the recontextualization of knowledge. Furthermore, such an integrating code of pedagogy is considerably important for the participation and significance of arts integration.

There are several reasons why the arts are essential in cumulative learning. First, all subject areas include artistic features or aesthetic dimensions. For example, while language arts comprises grammar (such as phonetics and syntax), in all material respects, it is concerned with the ability to express something with style and grace, i.e. aesthetically. Mathematics is described in some respects as beautiful. The aesthetic aspects may be linked to pleasant experiences, beauty in method, or perceptions of mathematics as an art form comparable with architecture, visual arts, music, and poetry.

Mathematics, rightly viewed, possesses not only truth, but supreme beauty – a beauty cold and austere, like that of sculpture, without appeal to any part of our weaker nature, without the gorgeous trappings of painting or music, yet sublimely pure, and capable of a stern perfection such as only the greatest art can show. The true spirit of delight, the exaltation, the sense of being more than man [sic.], which is the touchstone of the highest excellence, is to be found in mathematics as surely as in poetry. (Russel, 1907/2015, p. 43)

Aesthetics is a philosophical concept difficult to define, but it concerns what we experience as the beautiful or sublime. Aesthetic experiences are important for student engagement, cognitive understanding, intersubjective meaning creation, and the social construction of identity (Dewey, 1934/1980). If we consider that students should be given opportunities to understand events and phenomena in a comprehensive manner, aesthetic experiences may make a difference regarding situated learning and meaning-making (Wickman, 2006).

In sum, arts integration does not need to be considered legitimized because it is an enhancement of academic achievement, but rather because of its potential as an *enrichment* of knowledge, i.e. by broadening and deepening the understanding of cultural, social, and natural phenomena.

Multimodality as a key to integration

There is a long tradition that takes the written text as the natural mode of carrying information and knowledge (Kress, 2010). Similarly, spoken language has in turn been perceived as the given mode of pedagogic communication. However, a wider view is possible.

There are many other modes of meaning, in any culture, which are outside the realm of language. These will include both art forms such as painting, sculpture, music, the dance, and so forth, and other modes of cultural behaviour that are not classified under the heading of forms of art [...] (Halliday & Hasan, 1985/1989, p. 4).

The convention considers the textbook as the universal medium for conveying what one needs to know, and textbooks are usually understood as printed books consisting of text. From a social semiotic perspective, however, text is more than linguistic signs that have been written down. The concept of text includes a variety of symbolic expressions, such as images, films, music, etc. In this way, English sentences, mathematical graphs, visual arts such as a painting or photograph, and musical chords may all be perceived as texts with different modalities, i.e. means of expressing different modes. A mode is something that communicates meaning: a socially produced and "culturally shaped resource for making meaning" (Bezemer & Kress, 2008, p. 171). We communicate and learn by using different modalities, such as reading, writing, speaking, listening, viewing, etc. Moreover, meanings are usually created and communicated by means of "differing modal resources" (Bezemer & Kress, 2008, p. 171). As modes are socially produced, different modes are organized and culturally materialized in such a way that "different modes offer different potentials of meaning" (Jewitt, Bezemer, & O'Halloran, 2016, p. 72). This implies that different modes may be used for different purposes, or that a person's understanding of something could be broadened if one employs several types of media/ modes. Differing modes may work together, or each mode may contribute to a particular meaning in a unique way. Although modes of meaning are something socially produced in context, there are cultural resources with regularity. For example, road signs are designed on conventional relationships between signs and meaning. Regularities thus comprise genres, styles, and grammar rules of both verbal and nonverbal languages, and work as a common interpretative framework for communication. Since modes represent something tactile, readable, or hearable, there is a material dimension of modes that materializes the reproducible and non-fixed meaning of modes over time and space (Kress, 2010).

The introduction of the concepts of mode and multimodality produces a challenge to hitherto settled notions of language. After all, if all modes are used to make meaning, it poses the question whether some of these meanings are merely a kind of duplication of meanings already made in, say, speech or writing – maybe for relatively marginal reasons such as 'illustration' or for aesthetic reasons such as 'ornamentation' – or whether they are 'full' meanings, always quite distinct from other modes. If the latter is the case, then 'language' should be seen in a new light: no longer as central and dominant, fully capable of expressing all meanings, but as one means among others for making meaning, each of them specific. That amounts to a profound reorientation. It is the route taken in social semiotic approaches to multimodal representation (Kress, 2010, p. 79).

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The concept of multimodality points out that pedagogic communication is more multifaceted than spoken or written language, including a spectrum of semiotic modalities. Arts integration is, therefore, of great importance in opening potentials of meaning, such as aesthetic dimensions of objects. Thus, multimodal pedagogy is about striving for a fuller meaning.

There is a significant similarity between rules of curriculum-making and the choices with which teachers have to consider. In both practices – curriculum-making and lesson planning – there is a recontextualizing principle that "selectively appropriates, relocates, refocuses, and relates" objects, norms, and values, into a pedagogic discourse (Bernstein, 2000, p. 33).

Recontextualization is, literally, moving meaning material from one context with its social organization of participants and its modal ensembles to another, with its different social organization and modal ensembles. Meaning material always has a semiotic realization, so recontextualization involves the pre-presentation of the meaning materials in a manner apt for the new context in the light of the available modal resources. Pedagogically, recontextualization involves the moving of curricular texts in line with the pedagogic features of the environment of recontextualization (Bezemer & Kress, 2008, p. 184).

Since pedagogy is always about making choices, multimodality begins with the teacher's selection of content and form. The teacher may ask, "Which mode carries the most or the best information?" or "What mode has a functional specialization in this context or for certain purposes?" Multimodality allows the teacher to arrange texts and contexts in such a way that a certain meaning will be presented, or that a variety of meanings will be offered to the student. In other words, multimodality offers the teacher the opportunity of explaining a concept or an idea in alternate ways, such as by combining a written text with visual images, audio files, animations, or anything of a varied mode. Teachers may use different kinds of texts from popular culture (e.g. images, videos, and soundtracks) with semiotic resources of multiple modes (e.g. visual, aural, and linguistic) to communicate an intended pedagogic meaning (Hagood, Alvermann, & Heron-Hruby, 2010).

As an example, consider weighing the possibilities of multimodality using loanwords from the discipline of music. A composer who wants to create a work of music will take into account the timbre and function of a variety of instruments, whereafter an arranger will focus on the meaning the composer or artist wants to convey in combination with the intended ensemble. Similarly, a teacher must handle an ensemble of semiotic resources and orchestrate them into an effective performance (cf. Bezemer & Kress, 2008; Kress, 2010).

From the perspective of arts integration, teachers may ask what art-based modes can accomplish. Before describing the benefits of arts integration, we should outline the underlying principles of knowledge integration and the processes of recontextualizing meaning.

A semantic view on arts integration

Since every text is embedded in a historical, social, and cultural context, the relationship between text and context is of great interest. The context gives meaning to the text. At the same time, the text conveys meaning to the context. How students recognize the relationship between text and context is part of their orientation to meaning and of crucial importance for their academic performance (Bernstein, 1975). Students who tend to understand things narrowly and only in relation to their everyday lives are likely to

have difficulties transferring knowledge and recontextualizing meaning. By contrast, students who tend to understand things conceptually, synthesize and integrate entities in a process of cumulative learning (Bernstein, 2000; Maton, 2014). Cumulative knowledge-building is more likely to occur if the student has acquired an elaborated code, where meaning is relatively independent of specific contexts (Bernstein, 2000).

When putting this theory into teaching practice, it is crucial whether learning objects are built through integration and extension, or through structures of segmental aggregation (Maton, 2014). Learning outcomes will differ if students build their knowledge based on personal experience and prior learning, or if the subject matter they are taught is strongly compartmentalized. To clarify these separate approaches, Maton distinguishes between "cumulative learning, where students are allowed to transfer knowledge across contexts and through time, and segmented learning, where transfer is inhibited" (p. 108). The problem with the latter is that it may slip into segmentalism, i.e. when knowledge and knowing is so strongly tied to its context that it is only meaningful within that context. According to Maton, this arises when students are not allowed to integrate knowledge - their understanding and experiences - into cumulative structures. Maton points to two key principles for analysing different degrees of context-dependence in relation to cumulative learning: semantic gravity and semantic density (2014). These concepts were originally developed to analyse the organizing principles of knowledge practices in relation to segmented/cumulative knowledge building, but they can also be used to examine teaching practice with the intention of designing sequences of cumulative learning.

Semantic gravity (SG) "refers to the degree to which meaning relates to its context" (Maton, 2013, p. 11). Semantic gravity may be relatively weaker (–) or stronger (+) along a continuum of strength. When it is stronger (SG+), meaning is closely related or dependent on its social and symbolic context; when it is weaker (SG–), "meaning is less dependent on its context" (Maton, 2014, p. 110). In this way, semantic gravity conceptualizes the degree to which meaning relates to a context in making meaning. When teachers move from abstract concepts towards concrete cases, it strengthens semantic gravity (SG1); whereas, moving from the concrete towards abstractions weakens semantic gravity (SG1).

Semantic density (SD) "refers to the degree of condensation of meaning within sociocultural practices (symbols, terms, concepts, phrases, expressions, gestures, actions, clothing, etc.)" (Maton, 2014, p. 129). This semantic density may be relatively weaker (–) or stronger (+) along a continuum of strength. When stronger (SD+), meanings are condensed; when weaker (SD–), meanings are less condensed (Maton, 2013, 2014). In this way, semantic density conceptualizes the relationality of meanings (Maton & Doran, 2017, p. 49). When teachers, for example, go from sequences of events during World War II towards encoding the term concentration camp; or from relating structures of tonality and chords towards explaining harmonic theory in music, they are strengthening semantic density (SD1). Conversely, when teachers are moving from condensed concepts or symbols such as the above towards the underlying events or concepts, the process may be described as weakening semantic density (SD1). Thus, SD is about processes of condensation by which meanings are packed or unpacked in knowledge practices (Maton, 2014).



Figure 2. Three semantic profiles (Maton, 2016, p. 17).

Conceptualizing pedagogic processes by strengthening and weakening SG and SD enables teachers to design the *semantic profile* of pedagogic practice over time (Maton, 2013). Figure 2 illustrates three different profiles of SG and SD. When teaching is exclusively conducted on an abstract and conceptual level, we see a high semantic flatline (A). Conversely, when teaching processes are based solely on concrete cases or students' every-day experiences, a low semantic flatline is noted (B). A semantic wave, however, appears when the teacher moves from one level to another within the range of semantics (C).

The conceptual framework of Semantics can be used to analyse pedagogy as well as for lesson planning. This model can also contribute to the design of arts-integrated processes, as will be considered below.

"A Change Is Gonna Come"

This paper has so far discussed arts integration on a rather abstract level without concrete examples of how teachers may design an arts-integrated semantic wave. The United States (US) Civil Rights Movement may serve as a thematic example to show how previously presented concepts can be contextualized for teaching purposes. Music integration will be used for purposes of illustration. It is not that music is more important than other aesthetic subjects, but simply in order to provide a specific contextualization.

What can music do?

There is widespread agreement that the media and modes of music are something meaningful to humans (DeNora, 2000; Small, 1998). Since music has been considered a common language with the ability to convey feelings and communicate meaning in an aesthetic manner, it is a significant aspect of multimodality and a key resource for multimodal pedagogy. Music may have lyrics whose condensed meaning tells historical or fictional stories and cultural narratives. The medium of music can "provide opportunities for students to synthesize and analyse texts by discussing conceptual relationships between them and historical events that span hundreds of years" (Rhym, 2016, p. 106). Period music thus allows students to contextualize a given text, putting a historical event into perspective. It can clarify the sociocultural contexts of literacy, thus supplying a context through music (Goering & Burenheide, 2010; Goering & Wei, 2014; Johnson & Goering, 2016). Music can provide the sensation of hearing appropriate music of the time period of a novel or historical period, and allowing students to make their own selections of contemporary music encourages their voice in explaining how they perceive the curricula being studied (Goering & Burenheide, 2010, p. 47).

The illustrative theme – the Civil Rights Movement – includes a variety of songs that may suitably be used. The anthem "We Shall Overcome" was doubtless one of the most significant protest songs of nonviolent activism in the 1950 and 1960s in the U.S. (Tsesis, 2009). If the teacher presents authentic performances of the song, and discusses the lyrics, tone, or cadence of the music, the arts form is integrated with the historical content, and students are given an aesthetic experience of its meaning. The deepest understanding may occur if the audio content is combined with visuals such as newsreel footage or photographs. When music, films, and photographs are combined with archival accounts and the teacher's oral presentation, such instruction may contribute to multidimensional meaning-making.

A semantic wave could be redesigned as an aesthetic-semantic wave. The intention is to create a learning process that takes a concrete case or phenomenon from students' everyday lives as its starting point, i.e. something with relatively strong semantic gravity (SG+, SD–). The introduction to the subject area is then followed by a process of abstraction – usually some kind of conceptualization – in order to facilitate understanding of the phenomenon (SG1, SD1). Finally, the conceptual understanding may be processed by the active participation of students in creative processes that enable recontextualization (SG1, SD1).

An aesthetic-semantic wave

One key to creating interest, motivation, and thereby learning, is to consider the popular cultural preferences that students have. For example, Beyoncé is now one of the world's most famous pop stars. In a live concert at Twickenham Stadium in London on 1 June 2013, she performed the song "A Change Is Gonna Come". Her performance was a cover of Sam Cooke's original recording released in 1964 - a protest song that echoed Bob Dylan's "Blowin' in the Wind". In terms of meaning, Beyonce's performance may be seen as a recontextualization of the anthem from the US Civil Rights Movement of the 1960s transposed to an entertainment context in the U.K. 50 years later. Today's Western students probably recognize Beyoncé, but they are not likely to analyse her performance with reference to the Civil Rights Movement. This disparity may be a suitable starting point for a semantic wave. The teacher could ask students what Beyoncé is singing about, instruct them to investigate the title and analyse lyrics, etc. A Google search will link to webpages about Beyoncé, "A Change Is Gonna Come", the Civil Rights Movement, and more. The almost endless availability of digital media around a simple theme like this provides many opportunities for teachers and students to integrate various texts of different modes for multilayered learning (Cantwell, 2015; Ellen, 2016).

In the comments field to the videos on YouTube (Beyoncé LEGENDAS, 2016; Hick, 2013), @ScarzChosenspokesmen has written the following: "Bey...you can't sing this song in that outfit...you just can't...". In another comment @sassy54546 says that "I'm disappointed big time. Where's the pain and soul behind those lyrics? She performed it and polished it up like its just another performance down her check list..:(but i still love her

tho". Furthermore, @Laura Stover answers @sassy54546 with the comment: "She doesn't know the pain of what she sings [...]". These comments are examples of texts that may be used to initiate the study of the Civil Rights Movement, pointing out the weakening of gravity in the contemporary performance and strengthening the condensation of political, social, cultural, and historical meaning (SG1, SD1). As such, a study of differing iterations of such a song by different performers and in different time frames, in this case prompted by social media exchanges, can also lead to significant learning – about both the delivery of lyrics or performances as well as the historical contexts of the performers. The study of the art form, then, becomes as important as the study of history. In such learning and teaching, multimodality accomplishes arts integration in deeper, more meaningful ways.

Having come this far, students might be allowed to recontextualize the principles of the Civil Rights Movements into a contemporary social setting with significance for their everyday lives. Such a recontextualization could be done through a collaborative project, interactive communication activities, or intersubjective meaning-making processes (SG¹, SD¹). For example, students could create "protest songs" of current interest.

A semantic wave is dependent on continuous up and down movements, and the selected theme offers a multitude of ways for continuing the processes of cumulative learning. For example, the song "A Change Is Gonna Come" could be related to "We Shall Overcome" or Bob Dylan's "Times They Are A Changin". These three songs provide an arts-based input as to how anthems can create meaning in different sociopolitical contexts; the function of folk rock artists; the meaning of protest songs; why such songs may be understood as recontextualized negro spirituals; and the relationships between the American Civil Rights Movement and anti-apartheid movements in different parts of the world (SG1, SD1). The SG and SD may be continuously strengthened or weakened depending on the selection of narrative materials and issues. For example, students might be asked: "Why did the US rocker Bruce Springsteen perform a cover of 'We Shall Overcome' in Norway 2016?" Such a rhetorical question includes issues and disciplines like "Who is Springsteen?" (musicology), "Where is Norway?" (geography), and "What happened in Norway?" (social studies) (SG1, SD1). Similarly, a variety of phenomena or concepts may be unpacked and repacked in cycles of meaning-making.

Concluding remarks

Introducing something known to students from contemporary popular culture is a possible strategy for capturing their attention and creating curiosity for the educational content that will follow. This procedure may take advantage of student preferences and the context of their daily lives. Integrating the arts and perceiving them as legitimate resources for making meaning in the course of multimodal teaching and learning is powerful pedagogical practice. Multimodality is itself a way of weakening boundaries between media, modes, educational content, school subjects, academic disciplines, and in knowledge practices of other kinds. Where boundaries are reduced, the arts may be integrated generally, through processes of recontextualizing and cumulative knowledge building.

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Notes on contributor

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