



Developing multimodal literacy in tertiary education

Maria Papadopoulou, Sophia Goria, Polyxeni Manoli & Evgenia Pagkourelia

To cite this article: Maria Papadopoulou, Sophia Goria, Polyxeni Manoli & Evgenia Pagkourelia (2018) Developing multimodal literacy in tertiary education, Journal of Visual Literacy, 37:4, 317-329, DOI: [10.1080/1051144X.2018.1540177](https://doi.org/10.1080/1051144X.2018.1540177)

To link to this article: <https://doi.org/10.1080/1051144X.2018.1540177>



Published online: 21 Jan 2019.



Submit your article to this journal [↗](#)



Article views: 19



View Crossmark data [↗](#)

ARTICLE



Developing multimodal literacy in tertiary education

Maria Papadopoulou, Sophia Gorla, Polyxeni Manoli and Evgenia Pagkourelia

Department of Early Childhood Education 'Language and Culture' Lab, University of Thessaly, Volos, Greece

ABSTRACT

During the last few years, there has been an ongoing interest in applying multimodality in educational practice, while the need to develop future educators' multimodal literacy has become more than necessary. In this context, the present research aimed at exploring whether a multimodal literacy course could contribute to university student multimodal literacy development and help them implement multimodality in early childhood educational settings. The sample of the study consisted of 20 Greek undergraduate students of the Department of Early Childhood Education of the University of Thessaly, who completed an online questionnaire. Moreover, seven students, seven out of 20 participated in a focus-group discussion. The data were analysed through the thematic analysis method. The results of the study indicated that the course had a positive impact on raising student's multimodal literacy and awareness of applying multimodal pedagogies in schools.

KEYWORDS

Multimodal literacy; multimodal texts; pre-service early childhood educators; tertiary education

Introduction

Till the end of the 20th century, literacy was exclusively linked to language at the expense of other representational modes of meaning-making (Kress & van Leeuwen, 1996). However, radical changes in the domain of technology and communication redefined the communicational landscape, broadened the limits of literacy and gave rise to new kinds of texts, in which the meaning-making process was not solely based on language but on a multimodal way of meaning-making. According to Serafini (2010), 'this shift from a linguistic focus to a multimodal one requires readers to navigate, design, interpret and analyse texts in new and more interactive ways' (p. 86).

Although there are various approaches to multimodality, most researchers agree that this term refers to the active and dynamic interrelationship among the different semiotic modes of meaning, such as the linguistic, the visual, the gestural, the spatial or the audio mode, which individuals can draw on during text interaction to derive meaning (among others, Bateman, 2008; Cope & Kalantzis, 2009; Jewitt, Bezemer, & O'Halloran, 2016; Kress, 2010; Kress & van Leeuwen, 2001). Kress and van Leeuwen (2001) highlighted 'the use of several semiotic modes in the design of a semiotic

product or event, together with the particular way in which these modes are combined' to derive meaning (p. 20). From a social semiotic perspective, modes are socially and culturally shaped resources for making meaning, which are usually interrelated (Kress, 2010). In this way, deriving meaning in texts is based on all the available semiotic modes, which 'are often used in concert' (Mills & Unsworth, 2017, p. 5). However, since text meaning is not constructed in abstracto but in specific contexts, multimodality can be used to enhance the understand the meaning of communicational events, texts and artefacts within a specific context and culture (O'Halloran, 2009).

Undoubtedly, multimodality challenged the notion that learning is primarily a linguistic accomplishment, sketched key questions for a multimodal agenda, and defined conceptual tools for thinking about teaching and learning beyond language (Jewitt, 2008). The fact that nowadays most of the texts are multimodal has led to redefining literacy and reconsidering the limits of literacy (Unsworth, 2001). To put it differently, there was a shift from traditional literacy, emphasizing only language, to Multiliteracies, which focused on the multifarious synergy of different modes to meaning making (Cope & Kalantzis, 2000).

In fact, the Multiliteracies Project acknowledged multimodality in order to extend the current traditional literacy practices centered only on language (Cope & Kalantzis, 2000) and pointed out the need for a systematic metalanguage use during multimodality teaching, which could facilitate metatextual awareness of the relations among the various modes. A familiarity with the metalanguage of multimodal texts has been shown to be a key feature to the effective literacy instruction (Martin, 2008). As Unsworth (2006) mentioned, metalanguage 'entails systematic, technical knowledge of the ways in which the resources of language and images (and other semiotic systems) are deployed in meaning making' (p. 71). The relevant literature research highlighted the need for the development of a multimodal metalanguage comprising all modes (e.g. Macken-Horarik, 2009; Unsworth, 2001, 2006) and showed that the metalanguage use had a positive impact on the teaching of multimodal texts (e.g., Geoghegan, O'Neill, & Petersen, 2013; O'Neill, 2012; Papadimitriou & Makri, 2015; Serafini, 2011; Walsh, Asha, & Spranger, 2007).

Unsworth (2006) pointed out that 'the metalanguage must be based on systematic accounts of the meaning-making potential of the multimodal nature of contemporary texts and also be capable of expansion/modification in response to the expansion of meaning-making potential with the ongoing emergence of new forms of communication' (p. 71). However, more often than not, in the context of multimodal pedagogies, the metalanguage use in the analysis and teaching of multimodal texts is mainly or solely based on the Grammar of Visual Design put forward by Kress and van Leeuwen (1996) (e.g., Papadimitriou, Emmanouilidou, & Makri, 2015; Serafini, 2011). Namely, in multimodal texts emphasis is often put on the analysis of images, that is, the visual mode, through an explicit teaching of this metalanguage, while sometimes the visual mode is used as a basis for the analysis of other semiotic modes, which contribute to the meaning-making process. After all, this could be justified by the fact that the first approaches to multimodality referred to the visual communication and the association between the verbal and visual modes (Kress & van Leeuwen 1996; The

New London Group, 1996). Bateman (2008, p.7) stated that 'multimodal literacy is seen as an explicit part of the teaching curriculum, just as verbal literacy has always been', while highlighting that teachers should be appropriately trained to act as mediators for their students. This need has been pointed out by many researchers as well, who held that teachers were not well prepared for implementing multimodality in classrooms and did not use the proper metalanguage highlighting the importance of teachers' professional learning (Chandler, 2017; Cloonan, 2011; Edwards-Groves, 2011; Kitson, 2011; Ryan, Scott, & Walsh, 2010).

During the last few years, multimodal literacy courses have been hesitantly emerging in teacher education schools. Multimodality has been part of the curricula, which has given rise to the need to educate future teachers in terms of multimodality and its implementation in educational settings. Though issues, such as, originality in students' multimodal composition (Shipka, 2013), ways of assessing multimodal texts (Adsanatham et al., 2013; Ellis, 2013; Stein & Newfield, 2006) have already been explored in the university context, the research on multimodal literacy has not really yet affected higher education (Adsanatham et al., 2013).

The course

Allowing for the relevant literature research and the Greek Curriculum for kindergartens (Greek Pedagogical Institute, 2003), which suggested that children should consider both the image and language when interacting with texts, the Language and Culture Laboratory of the University of Thessaly decided to design and offer a multimodal literacy course to the Department of Early Childhood education.

The course entitled 'Multimodal texts: analysis, comprehension and production' is an elective course offered to the third-year students once a week, while more than half of the students are enrolled every year.

Designing and offering a course on multimodality at an Early Childhood Education School responds to the need to educate future teachers in terms of multimodality and its implementation in educational settings. The course aims at familiarizing students with multimodality, the interplay of modes, and the ways children make meaning, developing their multimodal metalanguage, and helping them critically analyse multimodal texts.

The course is taught through lectures and workshops. Multimodality and the contribution of various modes (audio, visual, spatial, gestural) to the meaning making process are among the issues discussed during the lectures, and, in particular, the meaning of images, colour, layout, and typography in print texts. A small part of the lectures (due to time limit) is dedicated to the presentation of research on the ways preschool children convey meaning from multimodal texts through the combination of different modes. Students become familiar with the Grammar of Visual Design (Kress & van Leeuwen, 1996) during workshops and are introduced into the analysis of multimodal texts (i.e. picture books, comics, signs, invitations, newspaper front pages, business cards, advertisements etc.). At the same time, it should be mentioned that there is focus on the critical approach of texts and discussion of the discourses that emerge.

In order to successfully complete the course, students are examined through two group assignments. More specifically, the first assignment consists of analysing print multimodal texts based on the Grammar of Visual Design (Kress & van Leeuwen, 1996). The second assignment requires that the students conduct a small scale research on the ways preschool children convey meaning from multimodal texts and produce multimodal texts. The sample consists of fifteen (15) comic strips expressing feelings (joy, sadness, fear, grief, and anger) from the comic books 'Asterix'. The students have to conduct short interviews with either 4 or 6 children. The children are asked to guess the heroes/heroines' feelings and explain what helped them with their guessing. Furthermore, they are asked to classify all strips according to the five feelings and finally make a comic strip depicting heroes that express any feeling they choose.

Research aims and questions

The present research aimed to investigate university students' views on a multimodal literacy course. In particular, it aimed at investigating whether a multimodal literacy course could contribute to student multimodal literacy development and help them implement multimodality in educational settings.

In this context, the following research questions were formulated:

- Can a multimodal literacy course make university students multimodally literate?
- Can a multimodal literacy course raise students' awareness regarding the importance of developing multimodal literacy pedagogies in educational contexts?

Method

Participants

Initially, the participants of the study were 20 Greek undergraduate students mostly females, 18–22 years old, who completed an online questionnaire. They were all undergraduate students of the Department of Early Childhood Education of the University of Thessaly located in central Greece. All the participants were registered students of the multimodal literacy course offered to the third-year students of the specific department. Seven students, all females, out of twenty participated in the focus-group discussion; the female dominance over male is usual in pedagogical departments.

Research tools

Allowing for the purpose of the study, a combination of quantitative and qualitative methods was used to validate and verify findings. More specifically, to collect the data, an online questionnaire was administered to students and a focus-group discussion was conducted through the use of a semi-structured discussion guide. It should also be mentioned that the research tools were piloted to three students of the

overall sample so that the researchers could check if the questions could yield the kind of data required, modify or eliminate possible ambiguous questions (Breen, 2006).

Online questionnaire

The online questionnaire was sent to the registered students of the course five months after its completion with the aim of investigating student knowledge consolidation and maintenance. It was completed by 20 students. The online questionnaire included open-ended and close-ended questions. It comprised two groups of questions: (a) some general questions referring to students' profile, their course attendance frequency, and their course assessment and (b) questions aiming at investigating students' views on the achievement of the learning objectives of the course, its content and teaching material, their familiarity with multimodality, their critical multimodal literacy skills development and their self-assessment to implement multimodality in their educational designs.

Focus group discussion

Another research tool used was the focus-group discussion (Krueger & Casey, 2000), which lasted for two hours approximately. In addition, an interview guide was used to further help the researcher with the content of the focus group discussion. The focus-group discussion was conducted by one of the researchers – and not by the instructor of the course – with the aim of collecting unbiased, authentic and clear answers on behalf of the participants; the overall aim was to achieve group member interaction and make all students contribute to a fruitful discussion in a pleasant and friendly environment (Rabiee, 2004). Seven students participated in the focus-group discussion, who knew each other, attended the course successfully and completed the online questionnaire. The discussion guide comprised groups of questions referring to the learning objectives of the course, student familiarity with multimodality and its implementation in educational settings on their part. It should also be mentioned that the participants of the study were asked to complete and sign a consent form, where the research aim and process were described and the participants' anonymity was ensured.

Data analysis

The focus-group discussion was tape-recorded and transcribed so that the researchers could further process the research data. In particular, the data coming both from the focus-group discussion and the open-ended questions of the questionnaire were analysed through the thematic analysis method (Guest, MacQueen, & Namey, 2011). The researchers studied the data line-by-line several times until they reached a coding of the most salient information according to the aims of the study. The results of the data analysis coming from the focus-group discussion were examined in conjunction with the students' answers to the questionnaire and the research aims, which are

presented in the next section. In addition, it should be mentioned that students' performance in the final exams and the two assignments required in the context of the assessment of the multimodal literacy course was considered to triangulate data.

Results

According to the results of the study coming both from the focus-group discussion and the questionnaire, it was found that the multimodal literacy course contributed to student multimodal literacy development, which could be implemented not only for personal reasons but also in educational settings to make their students multimodally literate.

Student multimodal literacy development

Regarding the first research question, the success of the course was not only associated with students' high scores in the context of the course assessment processes (final exams: 45% excellent, 26% very good, assignments: 50% excellent, 17% very good) but also with their answers that they became familiar with the basic principles of multimodality.

According to the findings of the questionnaire referring to the learning outcomes of the multimodal literacy course, 80% of the participants regarded that they became highly familiar with multimodality and the grammar of visual design (60% of the participants). Based on their answers, it was shown that they familiarized themselves with the synergy of the various semiotic modes to meaning making in multimodal texts (65% of the participants), which concurs with the findings of the focus-group discussion. Namely, the focus-group discussion indicated that the students had a clear understanding of the notion of multimodality (explicit references to a variety of multimodal texts), which they associated with the meaning making process resulting from the interplay of the various semiotic modes in a text. According to students' words, the knowledge and skills acquired from the course changed their way of thinking about the meaning making process and made them realize the contribution of the various modes, besides language, to the text meaning. As a student said, 'though my generation experiences multimodality in every field, I believe that if it had not been for the specific course, we would have considered only language in written texts without paying attention to images'.

By contrast with the concept of multimodality, it seemed that the term 'mode' was not explicitly presented by students during the focus-group discussion, as their references to the various semiotic modes (image, typography, colour, oral speech, body movements, intonation etc.) contributed to the meaning making process coincided to an extent with the text metafunctions. However, it should be mentioned that this cognitive confusion did not impede students' familiarity with the synergy of the various semiotic modes in a parallel, complementary or contradictory manner to make meaning in multimodal texts. Here are some instances of students' answers: 'the concept of synergy refers to the proper combination of the various semiotic modes', 'if the various modes are not combined, the text meaning will be incomplete', 'if a written text

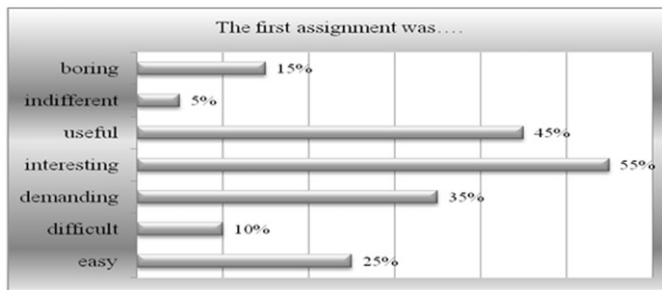


Figure 1. Students' views on the first assignment of the multimodal literacy course.

includes an image, this can complement the text meaning and vice-versa'. 'However, in some cases, these two modes are contradictory; namely, the language may come into contrast with the image and vice-versa'.

At this point, it should be highlighted that in addition to the whole teaching process, the first assignment administered to students in the context of the multimodal literacy course contributed to their familiarity with the text metafunctions. According to the findings of the questionnaire, this assignment – whose association with the content and learning aims of the course was acknowledged by almost all students (95% of the participants) – was regarded as useful by 45% of the participants and interesting by 55% of them due to its theoretical nature, which contributed to student multimodal literacy development (Figure 1 below).

In addition to the acquisition of the basic principles of multimodality, students developed the skills of multimodal text analysis through the use of relevant metalanguage, which seemed to be cognitively and metacognitively necessary for their understanding of the meaning making process in multimodal texts. In particular, the students mentioned in the focus-group discussion that they learned 'to see' – 'it was as if my eyes were opened' – based on a plan and specific, successive steps and locate all the modes that contributed to the meaning making process in multimodal texts.

At the same time, the students seemed to be fully aware of the fact that the choices of the text producers are not accidental but intentional. One of the students mentioned: 'for example, regarding the WWF video [A homeless polar bear in London <https://www.youtube.com/watch?v=4XpF04nximl>], you should pay close attention to everything; even the slightest detail, such as the factory located in the background, the way the girl was looking at the bear, could produce meaning. Moreover, it is obvious that all these people looking at a poster are not aware of the available techniques that contribute to the meaning-making process, which we became familiar with due to the specific course'. Another student highlighted that 'if it hadn't been for the specific course, I would have observed only what advertisers wanted us to observe... - while after the course I am able to approach what is shown to me more critically and process the meaning that is intended by the text producer with a healthy amount of scepticism...I can see, for instance, that there are some stereotypes'. In other words, the students before attending the course were not able to notice and understand that the choices of the text producers were intentional and that specific choices could instigate specific discourses. In this way, they considered that the course promoted their critical thinking and made them realize that the various texts were not neutrally

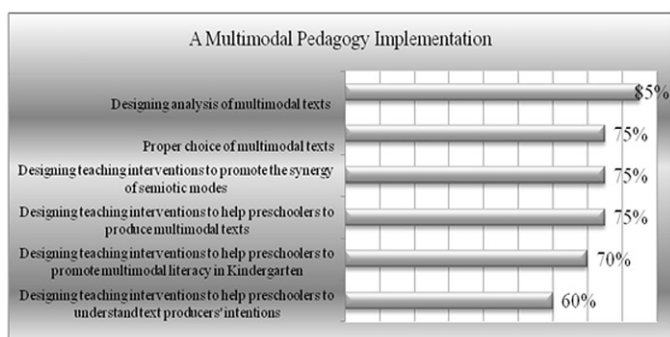


Figure 2. Students' views on their familiarity with a multimodal pedagogy implementation.

produced. The text analyses conducted throughout the course allowed the students to question text producers' choices, as there was an increase in their observation and an 'eye training'. According to their words: 'when simply looking at the various posters without further analysing them, we just notice what they want us to do ... while the proper process would be to understand and critically process the intended meaning so that you can eventually accept or reject it; however, this requires extensive experience and practice'.

Student multimodality implementation in educational settings

In terms of the second research question, the results of the questionnaire indicated that 85% of the students believed that they were able to implement multimodal pedagogies in educational settings to boost their own students' multimodal literacy. The next figure (Figure 2) presents the extent to which the students are familiar with the various teaching practices in the context of multimodality according to their answers to the questionnaire.

What's more, students' familiarity with multimodal practices becomes obvious through their suggestions about their teaching implementation. In particular, according to their words, taking advantage of multimodal texts contributes to the arrangement of the print classroom environment, meets practical demands, such as demarcation of classroom space, and constitutes a way to familiarize preschoolers with multimodal texts. According to a student suggestion: 'Regarding the print classroom environment, what I would do in the case, for instance, of teaching shapes was to avoid using only shapes and words ... since we are talking about preschoolers who have not developed their literacy skills yet ... I would use more images or sound instead; in addition to language, I would use other semiotic modes'.

Concurrently, it should be mentioned that students' suggestions about multimodality implementation in educational settings were not restricted only to the language education, as, for example, they suggested various ways to applying multimodality in science education. Namely, the participants in the focus-group discussion pointed out that when multimodal texts were chosen according to students' interests, experience and age (e.g. use of more images, less language and authentic texts, such as illustrated and picture books), they could be implemented in the context of various

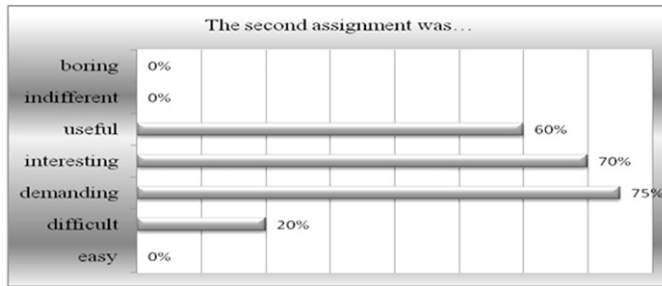


Figure 3. Students' views on the second assignment of the multimodal literacy course.

subjects and gradually lead students to produce multimodal texts. One student mentioned: 'multimodal texts should be relevant to students' experiences, while the combination of the various semiotic modes should be rather easy so that they can understand the intended meaning and feel that this is not beyond their abilities... multimodal texts should not consist of extensive language, since we are talking about preschoolers who are not able to read... they should include more images. Another student agreed with her peer highlighting that: 'I agree with you and I also suggest that we should first focus on the analysis of the basic modes of a multimodal text so that the student can become familiar with the meaning making process and then move on to their production of multimodal texts'. In fact, the specific teaching practices were regarded as necessary by the participants, since 'multimodality is an integral part of contemporary society'.

Regarding the use of ready-made analysis grids of multimodal texts that were deployed in the course to promote their training, the participants suggested that relevant tools should be used in their teaching interventions. According to a student words: 'I believe that the use of an analysis grid of any multimodal text is very useful in the kindergarten, as it practices student observation and critical thinking'. According to their suggestions, a tool of multimodal text analysis should lead students to a guided observation including questions about the various semiotic modes (e.g. language: oral/written speech, typography, visual mode: facial expressions, colour) and their contribution to the meaning making process in the context of a discussion. One participant supported that: 'I believe that preschoolers or older students need guidance to be able to familiarize themselves with the analysis and observation process and take advantage of all the available information until this process becomes more automatic'. In other words, the students referred to the use of metalanguage to help children process and produce multimodal texts. Thus, the course managed to make the university students fully aware of the fact that knowledge was gradually built within a group and was the result of reciprocal, cognitive support that boosted student understanding of text meaning.

Students' suggestions about the implementation of multimodal texts and practices were mainly the result of the experience gained during the second assignment of the course. Namely, during this assignment, students realized that preschoolers were able, to some extent, to identify the feeling expressed by the heroes of the comics, and could even justify the results of their observation, especially when they have already experienced the same feelings. Moreover, according to students' words, they realized

that they should associate multimodal literacy practices with children's interests and experiences. According to a student words: 'I insist that we should associate the student multimodality familiarization and development with their experiences to render the whole meaning making process easier'. The next figure (Figure 3) presents students' views on the second assignment of the course.

At the same time, the specific teaching practices made students realize that the inclusion of learning aims relevant to the multimodality in the Kindergarten Curriculum belongs to critical literacy practices. In other words, understanding text meaning through text composing or decomposing processes constitutes a prerequisite for the acceptance or rejection of text messages based on their experiences and beliefs and indicates the development of a critical attitude. One participant pointed out that: 'I consider that the most important part in the critical approach is the text meaning processing during which the student would either accept or reject it based on his/her experiences'. The students reported that it was feasible for preschoolers to develop the critical literacy skill, as long as they received the proper stimuli, pertinent to their experiences, at least during the preparatory stage of multimodal text meaning. What is missing is the updating of the Curriculum, as there is lack of explicit and sufficient reference to learning aims relevant to the implementation of multimodality practices.

Based on the results of the study, students' development of multimodal literacy through the specific university course was also corroborated by their high percentages in the course assessment processes, their knowledge maintenance and their teaching suggestions with the aim of rendering multimodally literate students. Simultaneously, the course was considered 'interesting and useful' by students not only for their professional development but also their future student familiarity with the concept of multimodality, which was verified by the questionnaire data, as 70% of the participants regarded the course as highly important for their professional development.

Discussion

According to the results of the study, it was shown that a course on multimodality could boost university students' multimodal literacy and raise their awareness of implementing multimodal pedagogies in schools. According to students' words, the course helped them have a clear understanding of the notion of multimodality and the contribution of the various semiotic modes to the meaning making process, despite the fact that their generation is constantly exposed to multimodal texts. However, it should be highlighted that student's acquisition of the relevant metalanguage is a prerequisite, which educators were not often familiar with, as previous research indicated (Chandler 2017; Cloonan, 2011; Edwards-Groves, 2011; Kitson, 2011; Ryan et al., 2010). At the same time, a social semiotic multimodal perspective could allow pre-service teachers to understand, perceive, interpret, accept or reject the various modes that constitute the intentional choices of the multimodal text producers putting aside previous language-centred approaches.

In addition, the process of highlighting the intentional choices made by the producers of multimodal texts and the discourses that emerge developed students' critical

literacy through a constant text analysis. Thus, multimodal literacy is required for the development of critical literacy, which is necessary for student education, since contemporary texts are multimodal (Kress & van Leeuwen, 2001; Unsworth, 2001) and the language-centred approaches are not adequate to the text meaning process.

Simultaneously, another benefit of offering multimodal literacy courses in higher education is that it is inextricably linked to the need for improving pre-service teachers' professional knowledge. Namely, the knowledge and skills that they acquired through the specific course as pre-service teachers provided them with tools that could be deployed in the near future not only in the context of ameliorating the teaching process but also developing multimodal literacy pedagogies according, of course, to students' experiences and interests. Based on the results of the study, it was evident that the students perceived the way in which preschoolers 'read' multimodal texts; this way was relied upon the use of metalanguage to understand and produce multimodal texts, as was their own case (Cope & Kalantzis, 2000; Unsworth 2006). Consequently, the adoption and creative adaptation of multimodal tools, which contribute to preschoolers' 'eye training', constitute a practice of multimodal and critical literacy.

Overall, despite the rather small number of participants in the study and the reliance on students' views rather than an applied practice to develop multimodal pedagogies, the present study highlighted the need to address multimodality in higher education, as there is no doubt that the benefits of offering similar courses are numerous. It can be held that the major benefit of a multimodal literacy course in higher education does not only have to do with the knowledge itself that students acquire but also the fact that this knowledge can be developed and used for pre-service teachers' needs cultivating a multimodal and critical pedagogy according to the contemporary needs of teacher education.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

- Adsanatham, C., Alexander, P., Carsey, K., Dubisar, A., Fedeczko, W., Landrum, D., ... Polak, M. (2013). Going multimodal: Programmatic, curricular, and classroom change. In T. Bowen & C. Whithaus (Eds.), *Multimodal literacies and emerging genres* (249–281). Pittsburgh: University of Pittsburgh Press.
- Bateman, J. (2008). *Multimodality and genre: A foundation for the systematic analysis of multimodal documents*. NY: Palgrave Macmillan.
- Breen, R.L. (2006). A practical guide to focus-group research. *Journal of Geography in Higher Education*, 30, 463–475. doi:10.1080/03098260600927575
- Chandler, P.D. (2017). To what extent are teachers well prepared to teach multimodal authoring? *Cogent Education*, 4(1), 1266820.
- Cloonan, A. (2011). Creating multimodal metalanguage with teachers. *English Teaching: practice and Critique*, 10, 23–40.
- Cope, B., & Kalantzis, M. (Eds.). (2000). *Multiliteracies: Literacy learning and the design of social futures*. London & New York: Routledge.

- Cope, B., & Kalantzis, M. (2009). A grammar of multimodality. *International Journal of Learning*, 16, 361–425.
- Edwards-Groves, C.J. (2011). The multimodal writing process: Changing practices in contemporary classrooms. *Language and Education*, 25, 49–64. doi:10.1080/09500782.2010.523468
- Ellis, E. (2013). Back to the future? The pedagogical promise of the (multimedia) essay. In T. Bowen & C. Whithaus (Eds.), *Multimodal literacies and emerging genres* (37–72). Pittsburgh: University of Pittsburgh Press.
- Geoghegan, D., O'Neill, S., & Petersen, S. (2013). Metalanguage: The 'teacher talk' of explicit literacy teaching in practice. *Improving Schools*, 16, 119–129. doi:10.1177/1365480213493707
- Greek Pedagogical Institute (2003). *A Cross Thematic Curriculum Framework for Nursery Schools*. Athens: Greek Pedagogical Institute. Translated from the Official Gazette issue B, nr 303/13-03-03 and issue B, nr 304/13-03-03 by members of the P.I. main staff and teachers seconded to the P.I. <http://www.pi-schools.gr/download/programs/depps/english/25th.pdf>
- Guest, G., MacQueen, K.M., & Namey, E.E. (2011). *Applied thematic analysis*. London: Sage.
- Jewitt, C. (2008). Multimodal discourses across the curriculum. In S. May & N. Hornberger (Eds.) *Encyclopedia of language and education* (pp. 356–367). Boston: Springer.
- Jewitt, C., Bezemer, J., & O'Halloran, K. (2016). *Introducing multimodality*. London: Routledge.
- Kitson, L. (2011). Reconceptualising understandings of texts, readers and contexts: One English teacher's response to using multimodal texts and interactive whiteboards. *English in Australia*, 46, 76–86.
- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. London: Routledge.
- Kress, G.R., & van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. London: Routledge.
- Kress, G., & van Leeuwen, T.V. (2001). *Multimodal discourse: The modes and media of contemporary communication*. London: Arnold.
- Krueger, R.A., & Casey, M.A. (2000). *Focus groups: A practical guide for applied researchers* (3rd ed.). Thousand Oaks, CA: Sage.
- Macken-Horarik, M. (2009). Multiliteracies, metalanguage and the protean mind: Navigating school English in a sea of change. *English in Australia*, 44, 33–43.
- Martin, J.R. (2008). Intermodal reconciliation: Mates in arms. In L. Unsworth (Ed.), *New Literacies and the English Curriculum* (pp. 112–148). London/New York: Continuum.
- Mills, K.A., & Unsworth, L. (2017). Multimodal literacy. In *Online Oxford Research Encyclopedia of Education*, Retrieved from <http://oxfordindex.oup.com/view/10.1093/acrefore/9780190264093.013.232>
- O'Halloran, K.L. (2009). Historical changes in the semiotic landscape: From calculation to computation. In C. Jewitt (Ed.), *The Routledge handbook of multimodal analysis* (pp. 98–113). London: Routledge.
- O'Neill, S. (2012). Teaching and assessment of persuasive writing: Juggling the language features and grasping the metalanguage. *International Journal of Pedagogies and Learning*, 7, 84–98. doi:10.5172/ijpl.2012.7.1.84
- Papadimitriou, E., & Makri, D. (2015). The metalanguage of "visual design" into the classroom for the construction of intermodal meanings. *International Journal of Education and Literacy Studies*, 3, 32–43.
- Papadimitriou, E., Emmanouilidou, M., & Makri, D. (2015). The 'visual grammar' in school contexts: A multimodal critical approach to teaching literacy to primary education students. *International Journal of Literacies*, 22, 29–41. doi:10.18848/2327-0136/CGP/v22i03/48845
- Rabiee, F. (2004). Focus-group interview and data analysis. *The Proceedings of the Nutrition Society*, 63, 655–660. doi:10.1079/PNS2004399
- Ryan, J., Scott, A., & Walsh, M. (2010). Pedagogy in the multimodal classroom: An analysis of the challenges and opportunities for teachers. *Teachers and Teaching: Theory and Practice*, 16, 477–489. doi:10.1080/13540601003754871
- Serafini, F. (2010). Reading multimodal texts: Perceptual, structural and ideological perspectives. *Children's Literature in Education*, 41, 85–104. doi:10.1007/s10583-010-9100-5

- Serafini, F. (2011). Expanding perspectives for comprehending visual images in multimodal texts. *Journal of Adolescent & Adult Literacy, 54*, 342–350. doi:[10.1598/JAAL.54.5.4](https://doi.org/10.1598/JAAL.54.5.4)
- Shipka, J. (2013). Including, but not limited to, the digital: Composing multimodal texts. In T. Bowen & C. Whithaus (Eds.), *Multimodal literacies and emerging genres* (37–72). Pittsburgh: University of Pittsburgh Press.
- Stein, P., & Newfield, D. (2006). Multiliteracies and multimodality in English in education in Africa: Mapping the terrain. *English Studies in Africa, 49*, 1–21. doi:[10.1080/00138390608691341](https://doi.org/10.1080/00138390608691341)
- The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*, 60–93. doi:[10.17763/haer.66.1.17370n67v22j160u](https://doi.org/10.17763/haer.66.1.17370n67v22j160u)
- Unsworth, L. (2001). *Teaching multiliteracies across the curriculum: Changing contexts of text and image in classroom practice*. Philadelphia, PA: Open University Press.
- Unsworth, L. (2006). Towards a metalanguage for multiliteracies education: Describing the meaning-making resources of language-image interaction. *English Teaching: Practice and Critique, 5*, 55–76.
- Walsh, M., Asha, J., & Spranger, N. (2007). Reading digital texts. *Australian Journal of Language & Literacy, 30*, 40–53.