

doi: 10.26529/cepsj.1049

Robert Potočnik and Iztok Devetak, *Heritage Preservation and Interdisciplinary Approach through Fine Art and Science Education*, Digit s.r.o.: 2020; 110 pp.: ISBN: 978-80-968441-5-9

Reviewed by MATIJA PURKAT¹

In recent years, an interdisciplinary approach through fine art and different school subjects has been gaining popularity and receiving more coverage among practitioners, teachers, authors and academics. This book offers and promotes more specialised content focused on heritage preservation. It is a monograph derived from the results of the study obtained through a project titled »Fine Art Materials and Heritage Preservation Education«. The main part of the project was the execution of three interdisciplinary workshops, focused on different educational periods of elementary school. The content of the book is, therefore, mainly based on these workshops and their practical implications are the primary strength of the book.



The authors are Dr Robert Potočnik and Dr Iztok Devetak, both members of the Faculty of Education, University of Ljubljana. Dr Potočnik is a certified curator and assistant professor of fine art didactics at the Department of Fine Art Education. His research interests cover the areas of didactics of fine art education, attitudes to preservation and protection of cultural heritage, preservation education, and cultural heritage conservation. Dr Devetak is a professor of chemical education at the Department of Biology, Chemistry, and Home Economics and the head of the department. His research interests cover the triple nature of chemical concepts, misconceptions about chemical concepts, chemical knowledge assessment, environmental chemistry education, and scientific literacy. The presented work is the result of the authors' collaboration on the interdisciplinary approach through fine art and science education.

¹ Primary School Hinko Smrekar, Slovenia; matija.purkat@guest.arnes.si.

The book consists of (in addition to the foreword, bibliography, and subject index) six chapters, organised according to the content: two chapters acquaint the reader with theoretical starting points, two chapters then deal with the practical contents of the interdisciplinary approach through fine art and science education, one chapter introduces the research results, and the shortest chapter summarises the ideas of the entire monograph.

In the first chapter, the term »heritage preservation education« is presented through content suitable for teaching in different educational periods of elementary school. Every subchapter is meant for a different educational period. Through paintings, sculpture, and architecture, every educational period requires a different focus. Furthermore, different cognitive activities are emphasised as specifically beneficial.

The second chapter is focused on the interdisciplinary approach. Firstly, the term is explained. Next, the interdisciplinary teaching of fine arts and science are presented, and specific characteristics of each are accentuated. Again, the fact that every educational period has its requirements on interdisciplinary teaching is stressed and presented with arguments. The last subchapter is interesting because it offers a more thorough argumentation of the interdisciplinary teaching of fine arts and science. A major part of the argumentation relies on the experience-based learning and the guideline that

[an] interdisciplinary approach [...] cannot be of high quality if Fine Art is subordinated to another school subject, (if) its objectives are not fully taken into account, if it is only used for the purpose of illustrating a specific topic or if the teacher requires only one »correct« definition of aesthetics. (Potočnik & Devetak, 2020, p. 14)

Unfortunately, the interdisciplinary approach is often mistreated: subordinated, unequal, and used for supporting other content with visually appealing information.

It is also worth emphasising that the work in this section highlights the idea that the approach does not mean simplifying or degrading the theoretical foundations of (in this case) fine arts and science, but provides a different and new perspective on both subject areas.

The third chapter presents a thorough description of each activity at a conservation and restoration workshop. It gives insight into the design and partly into the course of the workshops themselves, which were attended by students of all three age groups. This gives the reader useful insight into the design of the practical work.

The fourth chapter goes beyond the basic activities mentioned above. In this set, modules designed to be used to work with students in the classroom are briefly presented. Thematically, the modules are grouped into the following titles: Pigments and dyes, Adhesives (glues) and binders, and Paper.

The first part of the fourth chapter presents the theoretical background of the contents on colours, such as historical background about pigments, dyes, and primers. Despite the professional language, the content is presented understandably and can be a good reference point for teachers of practice, even for those who do not have in-depth knowledge of chemistry or fine arts (cf. classroom teachers). The end of the subchapter about pigments and dyes presents a set of proposed contents and concepts from science and fine arts, which are suitable for consideration in selected periods of primary school, and ends with the proposed practical contents and described work procedures.

The same concept is used in the second and third parts of this fourth chapter. This group of chapters presents the much-needed theoretical background of key concepts and concepts to the reader who comes from the professional field of teaching science and fine arts, and thus raises the quality of the practical content that the book proposes in the following chapter.

The next chapter then acquaints the reader with the results of the research, which also included the previously described workshops. In the introductory part, it is explained that in their qualitative research, the authors were interested in the attitude of stakeholders (students and curators) towards cross-curricular integration in workshops. The authors seem to have deliberately highlighted the interdisciplinary approach primarily from the perspective of the experts and less from the perspective of the students participating. This perspective is even more important because it is the opinion of the profession that plays a critical role in planning and implementing quality learning activities in science and fine arts lessons on the one hand and thus raising the quality of the included content on the other. Specifically, teachers are the key factors for introducing changes in teaching.

Works that are based on an interdisciplinary approach in theoretical starting points, practical contents, or further guidelines are subjects of great interest nowadays. It should be noted that increasing emphasis is placed on the participation of experts from various fields and disciplines and the quality exchange of verifiable information. It is also observed that practising teachers are looking for innovative teaching models with a desire to introduce improvements in teaching.

The book is interesting because it offers a quality insight not only into the theoretical starting points of the project but also into the argumentation

of the approach and aspects of the implementation of the teaching model in practical work. Although the authors emphasise the inclusion of the contents of fine arts and science concerning the preservation of cultural heritage, the chapters are sufficiently rich with information to allow consideration of other contents of both subject areas. Nevertheless, it must be acknowledged that the field of cultural heritage preservation deserves a special place in education, as such content is unfortunately too often beyond the interest and understanding of teachers and students of different ages of primary school. To avoid such important content not being included in the realisation of an individual subject, teachers can also draw ideas from this work and thus ensure the appropriate treatment of the content, which with their potential enable interdisciplinary treatment and thus the usefulness of knowledge that students acquire at the same time.

References

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