

Looking for “fire” and “forest fire” concepts in the Spanish Primary School curricula. New Challenges for environmental education

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Abstract

Fire is present in all biomes of the Earth except Antarctica. Fire has been recorded for 400 million years. Fire is part of human culture as was used as a tool (1 million years ago) by the hunter-gatherers, and by farmers, since agriculture was developed 12000 years ago, and is used in festivals such as the bonfires, which are very relevant for the Mediterranean culture. Our research evaluates the information given to the students in Primary Schools in the Spanish Educational System. Fire is recurrent yearly in Spain with forest fires that affect close to half a million hectares in the worse years. Fires are for the Spanish citizens an environmental, but also a social issue. We quantified the presence of the word “fire” during the six courses of Primary School. Although forest fires must be flighted with education (McCaffrey, 2004) within the education system (De’Arman and York, 2021) to improve prevention (Xanthopoulos et al., 2022; Diekman et al., 2010; Mondozzi et al., 2001), our findings show that the word “fire” is being seen as negative. Although “forest fires” are part of nature, within the education system they are seen as a risk for goods and people. We discuss the need to be more informative and also introduce forest fires as part of nature. A holistic view of nature is necessary for our educational system.

Keywords: Fire, Forest, Spain, Primary, School, Education, Teaching.

References

De’Arman, K. J., & York, R. F. (2021). “Society-Ready” and “Fire-Ready” Forestry Education in the United States: Interdisciplinary Discussion in Forestry Course Textbooks. *Journal of Forestry*, 119(3), 236-250. Diekman, S. T., Stewart, T. A., Teh, S. L., & Ballesteros, M. F. (2010). A qualitative evaluation of fire safety education programs for older adults. *Health promotion practice*, 11(2), 216-225. McCaffrey, S. M. (2004). Fighting fire with education: what is the best way to reach out to homeowners?. *Journal of forestry*, 102(5), 12-19. Mondozzi, M. A., & Harper, M. A. (2001). In search of effective education in burn and fire prevention. *The Journal of burn care & rehabilitation*, 22(4), 277-281. Xanthopoulos, G., Athanasiou, M., Nikiforaki, A., Kaoukis, K.,

Mantakas, G., Xanthopoulos, P., ... & Varela, V. (2022). Innovative Action for Forest Fire Prevention in Kythira Island, Greece, through Mobilization and Cooperation of the Population: Methodology and Challenges. *Sustainability*, 14(2), 594

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