

## Exploring In-service Teachers' Perspectives in Implementing Outdoor Environmental Education

Judith Chen-Hsuan Cheng<sup>1</sup>, Ivy Haoyin Hsieh<sup>2\*</sup>, Yu-Chi Tseng<sup>3</sup>

<sup>1</sup>. Assistant Professor, Department of Applied Economics & Management, National Ilan University

<sup>2</sup>. Assistant Professor, Department of English Language and Culture, Tamkang University

Lanyang Campus

<sup>3</sup>. Assistant Professor, Department of Science Education and Application, National Taichung  
University of Education

### Abstract

As the Environmental Education Act has taken effect in 2011, schools are mandatory to offer four-hour environmental education (EE) courses for teachers and students in Taiwan. The Ministry of Education began to promote outdoor education since 2015, which emphasized outdoor learning in EE facilities certificated by Environmental Protection Administration. Because of these policies, more and more schools struggled to develop quality outdoor environmental education (OEE). Thus, this qualitative study aims to explore teachers' perspectives in implementing OEE in order to assist them to develop better OEE teaching activities. Data were collected through focus group interviews and grounded theory was used to analyze data. Four major themes were found to represent teachers' perspectives in implementing OEE. It is concluded that if more resources, such as teaching strategies, financial support, and personnel are provided, more teachers will be willing to be involved in professional development and, thus, form a community of OEE.

**Keywords:** in-service teachers, outdoor environmental education, teachers' perspective

---

投稿日期：2017年09月15日；接受日期：2017年11月30日

\* 通訊作者

administrators' attitude toward EE greatly influences teachers' support of EE (Ernst, 2012), our study confirmed that benefits of OEE should be addressed at all schools to further promote OEE.

## VII. References

- Adams, E. (1993). School's out!: New initiatives for British school grounds. *Children's Environments, 10* (2), 180-91.
- Arnold, H. E., Cohen, F. G., & Warner, A. (2009). Youth and environmental action: Perspectives of young environmental leaders on their formative influences. *The Journal of Environmental Education, 40*(3), 27-36. doi: 10.3200/JOEE.40.3.27-36
- Auer, M. (2008). Sensory perception, rationalism, and outdoor environmental education. *International Research in Geographical and Environmental Education, 17*(1), 6-12. doi: 10.2167/irgee225.0
- Blanchet-Cohen, N., & Reilly, R. (2013). Teachers' perspectives on environmental education in multicultural contexts: Towards culturally-responsive environmental education. *Teaching and Teacher Education, 36*, 12-22. doi: 10.1016/j.tate.2013.07.001
- Chawla, L. (1999). Life paths into effective environmental action. *Journal of Environmental Education, 31*(1), 15-26. doi: 10.1080/00958969909598628
- Chawla, L. (2009). Growing up green: Becoming an agent of care for the natural world. *Journal of Developmental Processes, 4*(1), 6-23.
- Chawla, L. (2012). The development of conservation behaviors in childhood and youth. In D. S. Clayton (Ed.), *The Oxford handbook of environmental and conservation psychology* (pp.527-555). New York, NY: Oxford University Press.
- Cooper, D. L., & Saunders, S. A. (2000). Assessing programmatic needs. *New Directions for Student Services, 90*, 5-20. doi: 10.1080/00958964.2011.581313
- D'Amato, L. G., & Krasny, M. E. (2011). Outdoor adventure education: Applying

- transformative learning theory to understanding instrumental learning and personal growth in environmental education. *The Journal of Environmental Education*, 42(4), 237-254. doi: 10.1080/00958964.2011.581313
- Dillon, J., Rickinson, M., Teamey, K., Morris, M., Choi, M. Y., Sanders, D., & Benefield, P. (2006). The value of outdoor learning: evidence from research in the UK and elsewhere. *School Science Review*, 87(320), 107-111.
- Dyment, J. (2005). Green school grounds as sties for outdoor learning: barriers and opportunities. *International Journal of Geographical and Environmental Education*, 14(1), 24-41. doi: 10.1080/09500790508668328
- Ernst, J. (2012). Influences on and obstacles to K-12 administrators' support for environment-based education. *The Journal of Environmental Education*, 43(2), 73-92. doi: 10.1080/00958964.2011.602759
- Ernst, J., & Tornabene, L. (2012). Preservice early childhood educators' perceptions of outdoor settings as learning environments. *Environmental Education Research*, 18(5), 643-664. doi: 10.1080/13504622.2011.640749
- Evans, N., Whitehouse, H., & Gooch, M. (2012). Barriers, successes and enabling practices of education for sustainability in far north Queensland schools: A case study. *Journal of Environmental Education*, 43(2), 121-138. doi: 10.1080/00958964.2011.621995
- Fang, W. T., Ng, E., & Chang, M. C. (2017). Physical outdoor activity versus indoor activity: Their influence on environmental behaviors. *International Journal of Environmental Research and Public Health*, 14(7), 797. doi: 10.3390/ijerph14070797.
- Fern, E. F. (1982). The use of focus groups for idea generation: The effects of group size, acquaintanceship, and moderator on response quantity and quality. *Journal of Marketing Research*, 19, 1-13.
- Harwood, V. C., & Rasmussen, M. (2004). Studying schools with an ethic of discomfort. In B. Baker & K. Heyning (Eds.), *Dangerous coagulations? The uses*

- of Foucault in the study of education* (pp. 305-321). New York, NY: Peter Lang.
- Hayes, R., & Oppenheim, R. (1997). Constructivism: Reality is what you make it. In T. Sexton & B. Griffin (Eds.), *Constructivist thinking in counseling practice, research and training* (pp. 19-41). New York: Teachers College Press.
- Hsu, S.-J. (2003). Significant life experiences affecting the environmental action of active members of environmental organizations in the Hualien area. *Chinese Journal of Science Education*, 11(2), 121-139. doi: 10.6173/CJSE.2003.1102.01
- Hsu, S.-J. (2005). Significant life experiences fostering environmental activists: A focus on rural-urban and intergenerational differences. *Chinese Journal of Science Education*, 13(4), 441-463. doi: 10.6173/CJSE.2005.1304.04
- Hsu, S.-J. (2009). Significant life experiences affect environmental action: A confirmation study in eastern Taiwan. *Environmental Education Research*, 15(4), 497-517. doi: 10.1080/13504620903076973
- Hsu, S.-J., & Lee, H.-S. (2004). Life paths into environmental action of three environmental organization leaders in the Hualien area. *Chinese Journal of Environmental Education*, 3, 57-74. (in Chinese)
- Kitzinger, J. (1995). Introducing focus groups. *British Medical Journal*, 311, 299-302. doi: 10.1136/bmj.311.7000.299
- Kitzinger, J., & Barbour, R. (Eds.). (1999). *Developing focus group research: politics, theory and practice*. Thousand Oaks, CA: Sage.
- Krueger, R., & Casey, M. (2000). *Focus groups: A practical guide for applied research* (3rd Edition). Thousand Oaks, CA: Sage Publications.
- Lam, S., Cheng, R., & Choy, H. (2010). School support and teacher motivation to implement project-based learning. *Learning and Instruction*, 20(6), 487-497. doi: 10.1016/j.learninstruc.2009.07.003
- Louv, R. (2005). *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill, NC: Algonquin Books.
- Mills, J., Bonner, A., & Francis, K. (2006). The development of constructivist

- grounded theory. *International Journal of Qualitative Methods*, 5(5), 25-35.
- Ministry of Education (2014). *Manifesto of Learning Outside the Classroom*. Taipei, Taiwan: Author. (in Chinese)
- Ministry of Education (2016). *The Recommendations of the Integration of Four Important Issue into Learning Content in 1-12 Grade*. Taipei, Taiwan: Author.
- Moseley, C. & Reinke, K. & Bookout, V. (2003). The effect of teaching outdoor environmental education on elementary preservice teachers' self-efficacy. *Journal of Elementary Science Education*, 15(1), 1-14. doi: 10.1007/BF03174740
- Pidgeon, N., & Henwood, K. (1997). Using grounded theory in psychological research. In N. Hayes (Ed.), *Doing qualitative analysis in psychology* (pp. 245-273). Hove, UK: Psychology Press.
- Preston, L. (2011). Green pedagogy: guidance and doubt in teaching outdoor and environmental education. *Asia-Pacific Journal of Teacher Education*, 39(4), 367-380. doi: 10.1080/1359866X.2011.614686
- Priest, S. (1986). Redefining outdoor education: A matter of many relationships. *The Journal of Environmental Education*, 17(3), 13-15. doi: 10.1080/00958964.1986.9941413
- Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M. Y., & Sanders, D. (2004). *A review of research on outdoor learning*. Slough, London: National Foundation for Educational Research and King's College.
- Schartner, D. A. (2000). *An investigation of teachers' motivations and perceptions in attending a residential environmental education centre*. Unpublished master's thesis, Simon Fraser University, Burnaby, BC, Canada.
- Schiefele, U., Streblov, L., & Retelsdorf, J. (2013). Dimensions of teacher interest and their relations to occupational well-being and instructional practices. *Journal for Educational Research Online*, 5(1), 7-37.
- Simmons, D. A. (1988). The teacher's perspective of the resident environmental education experience. *The Journal of Environmental Education*, 19(2), 35-42.

doi: 10.1080/00958964.1988.9942753

- Smith-Sebasto, N. J. (2007). A reinvestigation of teachers' motivations toward and perceptions of residential environmental education: A case study of the New Jersey school of conservation. *The Journal of Environmental Education*, 38(4), 34-42. doi: 10.3200/JOEE.38.4.34-42
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd Edition). Thousand Oaks, CA: Sage.
- Tanner, T. (1980). Significant life experiences. *The Journal of Environmental Education*, 11(4), 20-24.
- Thomas, G. (2005). Traditional adventure activities in outdoor environmental education. *Australian Journal of Outdoor Education*, 9(1), 31-39.
- United States Environmental Protection Agency (n.d.). *Environmental education grants*. Retrieved from <http://www2.epa.gov/education/environmental-education-ee-grants>
- Wells, N., & Evans, G. (2003). Nearby nature: A buffer of life stress among rural children. *Environment and Behavior*, 35(3), 311-330. doi: 10.1177/0013916503035003001
- Wigfield, A., Eccles, J. S., Schiefele, U., Roeser, R., & Davis-Kean, P. (2006). Development of achievement motivation In W. Damon & N. Eisenberg (Eds.). *Handbook of child psychology Vol. 3* (pp. 933-1002). Hoboken, NJ: John Wiley & Sons, Inc. doi: 10.1002/9780470147658.chpsy0315
- Yueh, M. C. M. (2007). *Introducing a new subject: The case of environmental education in Taiwanese junior high schools*. Unpublished doctoral dissertation, The University of Waikato, New Zealand.

**Cheng, Judith Chen-Hsuan**

Assistant Professor, Department of Applied Economics & Management, National  
Ilan University

Tel: 03-935-7400 #7848

E-mail: chengch@niu.edu.tw

Address: 1 Sec 1, Shennung Rd., Yilan 260, Taiwan (R.O.C)

**Hsieh, Ivy Hao-yin**

Assistant Professor, Department of English Language and Culture, Tamkang  
University Lanyang Campus

Tel: 03-987-3088 #7134

E-mail: ivyhhsieh@mail.tku.edu.tw

Address: 180 Linwei Rd. Jiaoxi, Yilan 26247, Taiwan (R.O.C)

**Tseng, Yu-Chi**

Assistant Professor, Department of Science Education and Application, National  
Taichung University of Education

Tel: 04-2218-3532

E-mail: jutse100@gmail.com

Address: 140, Minsheng Rd., West Dist., Taichung City 40306, Taiwan (R.O.C)

**作者簡介：**

鄭辰旋 國立宜蘭大學應用經濟與管理學系助理教授

電話：03-935-7400 #7848

電子郵件：chengch@niu.edu.tw

通訊處：26047 宜蘭市神農路 1 段 1 號

謝顯音 淡江大學英美語言文化學系助理教授

電話：03-987-3088 #7134

電子郵件：ivyhsieh@mail.tku.edu.tw

通訊處：26247 宜蘭縣礁溪鄉林美村林尾路 180 號

曾鈺琪 國立臺中教育大學科學教育與應用學系助理教授

電話：04-2218-3532

電子郵件：yctseng1201@mail.ntcu.edu.tw

通訊處：40306 臺中市西區民生路 140 號

# 影響在職教師執行戶外環境教育之因素探討

鄭辰旋<sup>1</sup>、謝顯音<sup>2\*</sup>、曾鈺琪<sup>3</sup>

<sup>1</sup> 國立宜蘭大學應用經濟與管理學系助理教授

<sup>2</sup> 淡江大學英美語言文化學系助理教授

<sup>3</sup> 國立臺中教育大學科學教育與應用學系助理教授

## 摘要

臺灣自民國 100 年起實施環境教育法，國中小每年需要進行至少四小時之環境教育課程。教育部也自 104 年加強推動戶外教育，並鼓勵學校在環境保護署認證的環境教育場所進行課程。這些政策的推動也讓許多學校需要設法發展優質的戶外環境教育。有鑑於此，本研究主旨於探索在新政策下在職教師對於進行戶外環境教育的看法，並期望研究成果可以協助教師在未來發展出結合理論及實務的戶外環境教育課程。本研究運用焦點團體訪談法以及紮根理論來蒐集與分析資料。資料分析顯示主要有四大要素影響在職教師實施戶外環境教育，如果可以在教學策略、經費與人事上有足夠資源支持，教師會更願意投入戶外環境教育的專業精進並發展戶外環境教育社群。

**關鍵字：**在職教師、戶外環境教育、教師觀點

