

# DEVELOPING SOME CHARACTER AND VALUES FOR PRESERVICE BIOLOGY TEACHERS WITH A SOCIOSCIENTIFIC PROGRAM<sup>1</sup>

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## 1. INTRODUCTION

Rapidly developing science and technology have facilitated the treatment of many diseases, extended the life span of people, and improved the quality of life. However, the world and humanity have been faced with many problems such as the decline and degradation of natural resources, nuclear power plants, environmental pollution, climate change, and risks of genetic manipulations and GMO crops. Such issues where societies confront science fall within the scope of “socio-scientific issues” (SSI). According to Zeidler et al. (2009), SSI are controversial, questionable, ill-structured issues that entail moral reasoning and translate diverse values and multiple viewpoints into decision-making. The controversial nature of SSI results from the fact that they reflect distinct, well-thought-out, and logical situations. SSI have a wide range of possible solutions and are influenced by the diversity of personal priorities, principles, and prejudices; thus, people may approach issues differently. Individuals’ original perspectives can lead them to evaluate SSI in very different ways (Sadler & Zeidler, 2005a).

Lee et al. (2012) argue that characters and values are among the most important factors that influence global citizens’ decision-making and behaviour regarding SSI. According to Choi et al. (2011), the characters and values that a global citizen

<sup>1</sup> This paper was derived from the first author’s doctoral thesis.

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