

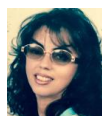
- [17] Mweene Chabalengula V., Mumba F., Chitiyo J., "American elementary education pre-service teachers' attitudes towards biotechnology processes", *International Journal of Environmental & Science Education*, 6 (4), pp.341-357, 2011.
- [18] Kidman G., "Attitudes and interests towards biotechnology: The mismatch between students and teachers", *Eurasia Journal of Mathematics, Science and Technology*, 5, pp.135-143, 2009.
- [19] Amin L., Ahmad J., Jahi J M., Nor A., Osman M., "Factors influencing Malaysian public attitudes to agrobiotechnology", *Public Understanding of Science*, 20 (5), pp.674-689, 2011.
- [20] Shmaefsky B., "Biotechnology 101". Westport, CT: Greenwood Press, 2006.
- [21] Dawson V. M., Venville G., "Teaching strategies for developing students' argumentation skills about socioscientific issues in high school genetics" *Research in Science Education*, 40 (2), pp.133-148, 2010.
- [22] Zeidler D. L., Sadler T. D., Applebaum S., Callahan B. E., "Advancing reflective judgment through Socioscientific Issues". *Journal of Research in Science Teaching*, 46 (1), pp.74-101, 2009.
- [23] Kanasa H., Nichols K., "Addressing emerging science and technology issues: Raising scientific literacy skills of middle year's students in Queensland schools". In AARE Conference, University of Queensland, Brisbane, 2008.
- [24] Sadler D., Donnelly A., "Socioscientific argumentation: The effects of content knowledge and morality". *International Journal of Science Education*, 28, pp.1463-1488, 2006.
- [25] Jiménez-Aleixandre M-P., Erduran S., "Argumentation in science education : an overview", In *Argumentation in science education : Recent developments and future directions.*, M.P. Jimenez-Aleixandre & Erduran Sibel (Eds.), Science & Technology Education Library, Springer, 35 (1), 2007.
- [26] Trabelsi N., Simonneaux L., "Analyse des arguments de jeunes élèves tunisiens de la fin du secondaire autour d'un débat socio-éthique en génie génétique". *Aster*, 42, pp.159-186, 2006.
- [27] Rosenberg M. J., Hovland C. I., "Cognitive, affective, and behavioral components of attitudes". In *Attitude organization and change: An analysis of consistency among attitude components*, C. I. Hovland & M. J. Rosenberg (Eds.), New Haven, CT: Yale University Press, 1960.
- [28] Ajzen I., Fishbein M., "Attitudes and the attitude-behavior relation: Reasoned and automatic processes". In *European Review of Social Psychology*, W. Stroebe & M. Hewstone (Eds.), Chichester: John Wiley & Sons, 2000.
- [29] Eagly A. H., Chaiken S., "The psychology of attitudes", New York: Harcourt College Publishers, 1993.
- [30] Ajzen, I., "Nature and operation of attitudes", *Annual Review of Psychology*, 52, pp.27-58, 2001.
- [31] Simonneaux L., "L'argumentation dans les débats en classe sur une technoscience controversée". *Aster*, 37, pp.189-214, 2003.
- [32] Williams J., "The effects of using social constructivism in the high school science classroom", *Master of Science in Science Education*, Montana State University, Bozeman, Montana (2011).
- [33] Simonneaux L., Ducamp Ch., Albe V., Simonneaux J., Hirtzlin N., "La perception des sciences par des lycéens est-elle modifiée par la présentation par des chercheurs de leurs travaux ?". In *Biannual meeting of Association pour la recherche en didactique des sciences et des techniques (ARDIST)*, Lyon, Institut national de la recherche pédagogique, pp. 347-353, 12-17 octobre 2005.

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