

An Approach to Improve Pre University Students' Responsible Environmental Behaviour through Science Writing Heuristic in Malaysia

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Abstract : This study investigated the effectiveness of green chemistry integrated with Science Writing Heuristic (SWH) in enhancing matriculation students' responsible environmental behaviour. For this purpose 207 matriculation students were randomly assigned into experimental (N=118) and control (N=89) group. For the experimental group the chemistry concepts were taught using the instructional approach of green chemistry integrated with Science Writing Heuristic (SWH) while for the control group the same content was taught using green chemistry. The data was analysed using ANCOVA and findings obtained from the quantitative analysis reveals that there is significant changes in responsible environmental behaviour ($F_{1,204} = 32.13$ ($\eta^2 = 0.14$) which favours the experimental group. The responses of the qualitative data obtained from an interview with the experimental group also further strengthen and indicated a significant improvement in responsible environmental behaviour. The outcome of the study suggests that using green chemistry integrated with Science Writing Heuristic (SWH) could be an alternative approach to improve students' responsible environmental behaviour towards the environment.

Keywords : science writing heuristic, green chemistry, pro environmental behaviour, laboratory

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