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?The Effects of a Mindfulness-Based Art and Design Programme on Self-Compassion and Self-Efficacy in Science Gifted Learners

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Abstract

?This research examined the effects of a mindfulness-based art and design programme on self-compassion, mindful attention and awareness, and self-efficacy in scientifically gifted learners. Eighty first-year students at K Science Gifted School completed the Self-Compassion Scale (SCS) as an initial screening measure. From those scoring within the Low to Moderate range (26–29 points), 14 volunteers were assigned to the experimental group and 14 students with comparable scores to the control group. The 14 week programme was evaluated using the Self-Compassion Scale, the Self-Efficacy Scale, and the Psychological Well-being Scale. Quantitative data were analysed via two-way ANOVA and paired-samples t-tests, whilst a qualitative content analysis of participants' written reports and completed artworks was conducted concurrently to provide deeper interpretive insight. Paired-samples t-test results indicated statistically significant improvements in the experimental group across self-compassion, self-regulatory efficacy, and self-confidence both sub-factors of self-efficacy. Two-way ANOVA further revealed a significant interaction effect between group membership and testing period for both overall self-efficacy and self-regulatory efficacy. Qualitative analysis corroborated these findings, evidencing enhanced concentration, increased positive affect, and improved self-regulatory capacity.

This research is significant in that it integrated mindfulness training ,widely adopted within Social and Emotional Learning (SEL) frameworks into the art and design curriculum, providing a practical, empirically validated programme that supports scientifically gifted learners in developing greater self-objectivity and a more positive sense of identity.

Keywords: ?Science Gifted Learners; Mindfulness ; Art and Design Education; Self-Efficacy; Self-Compassion