NEWSLETTER

Teacher Autonomy Support and Intellectual Risk Taking in Science Learning among Pupils: The Mediating Effects of Science Learning Interest and Creative Self-Efficacy

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TEACHER autonomy support is about teachers' instructional behavior that respects, support, and encourage students' autonomy in learning, including providing them with behavioral and emotional support, appreciating their ideas, allowing them adequate free space in learning, inquiry, and choice-making, and more. Intellectual risk taking refers to the quality of being academically active in experimenting without concern about failure, a quality crucial to students' science learning and creativity ability development. Creative self-efficacy is about the individual's judgment on their capacities to generate creative ideas and solutions to problems. This article investigates the linkage between teacher autonomy support and student intellectual risk taking in science learning and examines the mediating effects of interest in science learning and creative self-efficacy.

Research findings indicate that the more teacher autonomy support students perceives, the more daring they are in scientific inquiry; and that teacher autonomy support can enhance students' level of intellectual risk taking by piquing their interest in science learning and boosting their creative self-efficacy. This also means that students' interest in science learning and creative self-efficacy will increase when the teacher shows respect to their opinions and allows them the freedom of autonomous inquiry, and that, as a result, they will become bolder in trying new things and experimenting new solutions to problems, less likely to be overwhelmed by setbacks and failures.

The study provides several important implications: (i) Rigid teaching procedures are not beneficial for motivating students' active engagement in science learning or enhancing their interest in learning and creative self-efficacy. Hence, the teacher should give students more space for autonomous exploration. (ii) Learning interest, creative self-efficacy, and intellectual risk taking are positive predictors of student engagement in learning, science achievements, and creative and innovative behaviors. (iii) More autonomy-supportive teaching strategies should be adopted to boost student learning in-

terest and creative self-efficacy such that students will become more ready to make bold, creative attempts.

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