

## **A CORRELATIONAL-COMPARATIVE STUDY OF GRADES 9, 10, 11 AND 12 STUDENTS' MOTIVATION FOR LEARNING BIOLOGY AND THEIR BIOLOGY ACHIEVEMENT AT PAN-ASIA INTERNATIONAL SCHOOL, THAILAND**

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**Abstract:** This study investigated student motivation for learning biology, with student biology achievement at Pan-Asia International School (PAIS) in Thailand. The study separated Grades 9 and 10 students, and Grades 11 and 12 students according to their academic program. The study examined the motivation of 64 Grades 9 and 10 students ("Pre-IB" Program), and 43 Grades 11 and 12 students (International Baccalaureate Diploma Program). The researcher used the Motivated Strategies for Learning Science Questionnaire (MSLSQ) to identify the student motivation level for learning biology of these 107 students in the high school department at PAIS. Student motivation level for learning biology was determined from five components of motivation for learning: intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs and self-efficacy for learning and performance. Student achievement in biology was examined using two achievement placement tests created from past International Baccalaureate exam questions. The data collected was analyzed using means, standard deviations, Pearson product moment correlation coefficients and an independent samples t-test. The findings showed that the level of students' motivation for learning biology in both Grades 9 and 10 and Grades 11 and 12 was high. A significant relationship was determined between students' motivation level for learning biology and student biology achievement for both Grades 9 and 10 and Grades 11 and 12. Grade 12 students at PAIS were determined as having a lower level of motivation for learning biology, in comparison with the other grade levels studied. Recommendations for schools, teachers and future researchers were identified.

**Keywords:** Motivation, Biology, Achievement, Science, High School, International Baccalaureate Diploma Program.

### **Introduction**

Pan-Asia International School (PAIS) is an International school in Bangkok, Thailand. PAIS utilized a modified form of the Massachusetts State curriculum until

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