Bridging School-based Formal and Informal Learning Spaces: A Case Study of Advancing Interest-driven Education in Singapore Schools

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Abstract: An interest-driven learning environment can be viewed as an entry point for learning staged in a specific context, which can be formal and/or informal, with supporting and meaningful learning that engages students' interest (Zosh, Fisher, Golinkoff & Hirsh-Pasek). This suggests the need of creating activities to develop and connect students' understanding of their surrounding world (e.g. students' school curriculum and social world) to what they learn in their classrooms (Samuelsson, 2005). Our study investigated how an interest-driven learning environment can serve as a platform for students to establish their interests within the formal setting of their school environment –to learn, to develop their individual agency, and to develop the knowledge and skills to accomplish their interest-driven goals.

Keywords: Interest-driven Learning, Formal and Informal Learning

1. Introduction

In Singapore, the formal classroom is recognised as the locus where learning takes place and where most activities are intentionally planned to meet curricular goals and outcomes. However, it is estimated that during their schooling years 86.7% of students' time will be spent outside of a classroom (Gerber, Cavallo, & Edmund, 2001). Currently, little prominence has been given to the value of learning based on students' interests, especially through an informal setting. In fact, there is often tension when informal learning sites are viewed in relation to traditional classroom spaces, as parents and even some educators question how such experiences may be beneficial to students. There are learning opportunities found in both the informal and formal environments, but there is a lack of synchronicity between the two environments. Learning (and not learning) in these two spaces are totally isolated from each other. Our aim is to make learning occur in both the formal and informal settings in an orchestrated manner, by amplifying interest through the informal approach into the formal learning space.

2. The Study

Our study investigated how an interest-driven learning environment can serve as a platform for students to establish their interests within the formal setting of their school environment – to learn, to develop their individual agency, and to develop the knowledge and skills to accomplish their interest-driven goals.

An interest-driven learning environment can be viewed as an entry point for learning staged in a specific context, which can be formal and/or informal, with supporting and meaningful learning that engages students' interest (Zosh, Fisher, Golinkoff & Hirsh-Pasek). This suggests the need of creating activities to develop and connect students' understanding of their surrounding world (e.g. students' school curriculum and social world) to what they learn in their classrooms (Samuelsson, 2005).

In this study, we enacted a series of Science lessons anchored in student interests in a primary school. Lessons were conducted on the topics of light and heat. We first determined the general interests that

students had, through a survey. and categorised them into four main groups (i) performing arts, (ii) arts & crafts, (iii) sports and (iv) games & leisure. The classification into four interest groups, which we later termed it, was adapted from the four distinct categories of school-based co-curricular activities (CCAs) where choices of participation in the latter is often made by students, rather than imposed on them. At the end of each of the two topics, students were given some time to work on tasks based on the four interest groups. We posit that in using student interest as examples to link to theoretical concepts, rather than just dealing with the content and outcomes of learning, could be one way to build in students' genuine interest in learning. Therefore, with that, we can bridge student interest, garnered from their interests and incorporate that into formal classrooms learning and vice versa. This can be helpful in developing understanding of scientific concepts which are commonly seen as abstract and inaccessible to students. We collected and analysed lesson observation notes, student surveys, students' SA1/SA2 results, and Focus Group Discussions (FGD) that were conducted with both students and teachers.

Based on our findings, it appears that by capitalising on and catering to students' varying abilities and interests, a learning environment can pave the way for more opportunities for students to learn that is driven by their interests, agency, and relevancy. In doing so, students can develop skills and competencies that go beyond routized cognitive tasks, such as the ability to critically seek and synthesise information, the ability to create and innovate, and the ability to self-direct one's learning (Dede 2010).

An impactful outcome for the study was the two lesson packages that comprised the four main categories of students' interests, and the learning frameworks for its implementation. Student interest categories guided the design and implementation of the lesson packages. The teachers, together with the researchers, were actively involved in formulating design principles to guide the implementation of the lessons. Teachers' awareness of intentional design and facilitation in adapting to the profiles of students' interests for positive cognitive performance to occur is deemed vital.

3. Conclusion

This study has provided an example of how interest-driven learning can be enacted in schools, with alignment to the curriculum. This is done by synchronising learning between the formal and informal settings, by amplifying learners' interest through the informal approach within the formal learning space. Capitalising on students' interest helped them develop skills and competencies that go beyond routinized cognitive tasks, and supported their ability to critically seek and synthesise information that often comes from outside of the formal curriculum.

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