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Exploring the Link between Assessment and Differentiated Instruction

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ifferentiated Instruction (DI) is an approach guided by key principles philosophies of diversity and and equity where teachers take a proactive, intentional and systematic response to maximise students' potential through the modification of four classroom elements: content, process, product, and affect or environment (Tomlinson, 2017). This approach is premised upon five principles: i) an environment that encourages and supports learning; ii) quality curriculum; iii) assessment that informs teaching and learning; iv) instruction that responds to student variance or differences; and v) leading student and managing routines. Assessment plays an integral role in DI because it provides teachers with actionable information to determine where their students are relative to the curricular goals, and therefore make purposeful instructional plans that would boost student learning (Tomlinson & Moon, 2013).

A Study of How Teachers Implemented DI in Singapore: Preliminary Findings on Assessment Practices

This article is part of a larger research that explored how five primary and five secondary school teachers teaching either English Language, Mathematics or Science implemented and experienced DI in Singapore. We conducted 39 lesson observations in total and 3 interviews with each teacher. In addition to Tomlinson's (2013) student variance of readiness (i.e., "proximity to specified learning goals"), interests and learning profile (i.e., "preferred approaches to learning") (p. 2), this study also considered learner profile (elements that shape learners and their identity such as gender, nationality, home environment, etc.).

Preliminary findings indicate that participants collected information on students that allowed them to feed forward into instructional practices, most frequently for readiness, followed by learner profile, learning profile and interest. Participants suggested that the heavy focus on readiness assessment could be due to: societal emphasis on grades, accountability of student performance to school, parents and students, teacher performance evaluation, and ease and convenience of readiness assessment. Preliminary findings also suggest that participants exhibited moderate evidence in using formative assessment (FA) to glean information on learning, but weak evidence in using the information collected to adjust instruction. While findings suggest that participants are comfortable using FA in the classroom, participants shared that they struggled with instructional adjustment because they were not aware of how to make adjustments, found it consuming, faced competing school commitments, and were concerned about the efficacy of DI. Finally, preliminary findings indicate that there was weak evidence of participants promoting learner independence by encouraging self-directed learning and self-assessments. Participants explained that the culture of learning remains teacher-directed, students lack confidence and motivation, and selfregulation was difficult without parental support.

Possible Implications of Findings

Professional sharing and personal reflections can help teachers move

beyond an over-emphasis on readiness to consider assessment, not just for improving learning, but for understanding students holistically. For instance, teachers could keep an interest inventory of their students or seek student feedback on reflection questions like "What I'd like my teacher to know?" and "How did you feel about today's activity?"

In response to challenges around using formative assessment to inform instructional differentiation, teachers could work collaboratively in schools and across schools, tap into OPAL for resources, and utilise technology like Flubaroo, Gradecam and Plickers. Utilising peer assessment and providing answers for self-checking could reduce teachers' marking load and increase selfdirection and self-assessment among students. Most importantly, teachers embarking on DI would do well to start small, start clear, and take heart that changes around teaching and learning is a long-term work that might not bear fruit immediately, but eventually will.

References

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