

RESEARCH AREA & SOURCE	DESCRIPTION & MAIN FINDINGS / ARGUMENTS
<p>Teaching Strategies – Math</p> <p><i>International Journal of Science and Mathematics Education</i></p> <p>4.117 - 143</p>	<p>Sullivan, P., Mousley, J. & Zevenbergen, R. (2006) Teacher actions to maximize mathematics learning opportunities in heterogeneous classrooms.</p> <p>This article described one stage in a three-year investigation into barriers that may inhibit the mathematical learning of some students. At this particular stage of the research a lesson sequence based on elements identified in previous stages is being trialed. The lesson is based on the premise that all students regardless of prior experience and ability should have the same goal focus and should share a common set of learning experiences so that all students can develop a sense of communal experience that will help them both participate in substantive conversations about mathematical concepts and feel successful in their mathematical learning. To this end the lesson contains the following elements:</p> <ul style="list-style-type: none"> • a goal task (open-ended) with a series of less complex problem-like tasks that form a learning trajectory. The tasks anticipate a set of hypothetical cognitive processes leading to the goal task. (In this case the goal task was: - Given isometric paper and simple two-dimensional representation of two side views of a building, students were asked to draw what the building might look like. An example of one of the scaffolding tasks was : - The initial task was for students to draw on isometric paper two different shapes that could be made out of three lamingtons - Australian cakes typically shaped like a rectangular prism) • a set of enabling prompts which anticipate the potential difficulties students may have and that can be used to support students with each of the tasks. The prompts typically remove one of the factors contributing to the difficulty and avoid the need for the teacher to direct the student towards a particular solution strategy (for example some students had trouble with the initial task because they did not appreciate the way isometric paper could be used. These students were given an additional isometric sheet with two cubes already drawn) • a set of tasks that could be posed as extension tasks to students who complete the original task. These always extend thinking around the concepts central to the goal task. (for example, students who finished the initial task were asked to draw some cakes that could be made with 4 lamingtons) • a list of specific pedagogies which are made explicit to students. In other words, students are told the purpose behind each of the steps which builds toward the goal task as there is some evidence from research that the use of open-ended tasks can disadvantage students who are less familiar with the goals of schooling. (For example when introducing the initial task the teacher said “This is for you to see if you can use isometric paper to draw cubic shapes. You will learn to draw different shapes in different ways using isometric paper. There is more than one possible answer”) • opportunities to share strategies and thought-processes and discuss them at the end of the process <p>Main Findings:</p>

	<ul style="list-style-type: none"> • The enabling prompts (used only when needed) allowed all students to re-engage with the tasks and come up with a possible solution. • The nature of the enabling prompts meant that other students were often not aware that a particular student was having difficulty with a task. In fact the lesson observer for the most part did not note that these interventions had taken place. • All students were engaged with the tasks and were able to come up with a possible solution to the goal task (though some solutions of course were simpler than others) and therefore had the possibility of contributing to the final discussions. This was a significant result considering it was a class of 55 students across a broad spectrum of ability levels. • Interviews with the teacher and some students indicated that students had felt successful in the lesson. • Analysis of observations and student products of 10 similar lessons yielded similar results, suggesting that the elements of the lesson may have broad applicability.
<p>Assessment - Language</p> <p><i>Teachers College Record Vol. 108, No. 11, pp. 2304 - 2328</i></p>	<p>Macswan, J. & Rolstad, K. (2006) How language proficiency tests mislead us about ability: Implications for English language learner placement in special education.</p> <p>Previous research had noted that learners from non-English speaking backgrounds were overrepresented in special education programs in US schools. The authors of this study linked this result to the practice of testing the language proficiency of these learners in their native languages using tests they believed were inappropriate. The study compared the results of 145 students on commonly used assessment of Spanish language proficiency (LAS-O Espagnol & IPT Spanish) with a natural language sample collected from students interacting with a native speaker and telling a story using a picture book with no text. The transcripts were coded for morphological error rate. The basis for decision about errors was the norms of the child’s speech community rather than an idealized version of language.</p> <p>Main Findings:</p> <ul style="list-style-type: none"> • On the LAS-O test only 26% of the students were rated as fluent native speakers, 35% as limited speakers and 39% as non-speakers. On the IPT test only 10% were rated as fluent, 78% as limited and 12 % as non-speakers. • In contrast, using the natural language sample, 97% of students made less than 10% errors (the rate which is considered to be normal for developing mature speakers) <p>Suggested Solutions from the Researchers</p> <ul style="list-style-type: none"> • The authors suggest that the routine testing of first language skills be abandoned and that it only be used if there is a serious suspicion that a language disability exists. • They further suggest that natural language sampling, rather than commercial tests, be the basis for decisions about native language ability though they admit that the coding procedures used in the study would be time-consuming. • The authors also distinguish between assessing a language and assessing in a language and suggest that in determining a student’s ability on nonlinguistic constructs, assessments should be made in the language the student is more comfortable with.
<p>School</p>	<p>Agassi, J. (2005) Book Review of Reynolds, D., Creemers, B., Stringfield, S. Teddlie, C. & Schaffer, G. (2002) <i>World Class schools:</i></p>

<p>Effectiveness</p> <p><i>Journal of Educational Thought</i> Vol. 39, No. 2, pp. 217 - 222</p>	<p><i>International perspectives on school effectiveness. New York: Routledge.</i></p> <p>The reviewer is pretty scathing about the inadequacies of the book (though his own writing is pretty abstruse). Usefully, however, he gives us three lists of factors contributing to effective schools as listed in the book:</p> <ol style="list-style-type: none"> 1. From two previous empirical studies <ul style="list-style-type: none"> • Strong headmasters • High expectations • Emphasis on basic skills • Safe and orderly climate • Frequent evaluation of pupil progress and achievement 2. From the studies conducted in as part of the research for the book - in English-speaking countries <ul style="list-style-type: none"> • Principal leadership • Expectations from students • School goals • Inter-staff relations • School image 3. From the studies conducted in as part of the research for the book - in non-English-speaking countries <ul style="list-style-type: none"> • The child's experiences • Instructional style • Curriculum • Parental influence
<p>Leadership / Learning Communities</p> <p><i>The Australian Educational Leader</i> Vol. 29, No. 1, pp. 46 - 47</p>	<p>Avenell, K. (2007) Common themes on learning communities.</p> <p>Avenell summarizes a study done by DEST (Department of Education, Science and Training - Commonwealth of Australia) and places it in the context of theories of learning communities. The DEST study was an investigation of 20 highly effective schools.</p> <p>Main Findings (of the DEST study):</p> <ul style="list-style-type: none"> • Without exception, each of the highly effective schools in the study performed as a professional learning community. The common characteristics of the learning communities in these 20 schools were as follows: <ul style="list-style-type: none"> • explicit expectations of learning • aligned values, culture and actions • focussed leadership and teaching • networked linkages

	<ul style="list-style-type: none"> • Overlaid across each of these characteristics was the pervasive trait of relatedness and relationships which accented shared beliefs and understandings, interaction and participation, interdependence and concern for individuals. • Consistent across the study was the central and pivotal importance of school leadership and particularly the principal in transforming a school into a learning community.
<p>Assessment – Language</p> <p><i>Applied Linguistics</i> <i>Vol. 26, No. 3, pp. 317 - 342</i></p>	<p>Ross, S. (2005) The impact of assessment method on foreign language proficiency growth.</p> <p>This study examined the effect of formative assessment on proficiency growth with foreign language learners. The subjects were eight cohorts of students (2215 in total) participating in a 320 hour, four-semester English for Academic Purposes course. The first four cohorts were assessed with mainly conventional end of term summative assessments and tests. The subsequent four cohorts participated in formative assessments including self-assessment, peer assessment, on-going portfolios and cooperative learning projects as well as more traditional summative assessments. Comparisons were made based on both student grade point averages over the four semesters and three TOEFL tests in reading and listening administered prior to entry into the program, at the end of the first academic year and again at the end of the second academic year.</p> <p>Main Findings:</p> <ul style="list-style-type: none"> • Grades calculated with the inclusion of formative assessments were no less reliable than grades calculated using purely teacher-assessed summative tasks. • In the summative group, learners whose initial proficiency levels in both reading and listening were high showed the most improvement. In contrast, formative assessment seems to have neutralized some of the causal influence of initial proficiency on future achievement and (particularly with regard to listening) those who began with lower proficiency either progressed at the same or a greater rate than those who began with higher proficiency. • The formative cohorts demonstrated a rate of growth in proficiency that was 36% faster than the summative cohorts for listening and 3.2% faster for reading. • In reading the formative cohorts showed a higher gain in proficiency (as measured on the TOEFL test) at the end of the first academic year. This had tapered off by the end of the second academic year so that there was little difference between the groups. • In listening the formative cohorts showed a significantly higher gain in proficiency to the summative cohorts and this difference increased further by the end of the second year. • In general the researchers conclude that formative assessment has a substantive impact on proficiency growth, but that this seems to be domain-dependent. They speculate that proficiency growth in reading may be more associated with cross-referencing of reading materials in mainstream subject area courses.