

RESEARCH AREA & SOURCE	DESCRIPTION & MAIN FINDINGS / ARGUMENTS
<p>Teacher Planning</p> <p><i>Quest Vol. 58, pp. 424 - 442</i></p>	<p>Hall, T. & Smith, M. (2006) Teacher planning, instruction and reflection: What we know about teacher cognitive processes.</p> <p>This article reviews the literature on teacher thinking during planning, instruction and reflection. Much of the research reviewed looks at the differences in thinking between novice and experienced teachers.</p> <p>Main Findings / Arguments:</p> <p><i>Planning</i></p> <ul style="list-style-type: none"> • Most teachers rate unit plans as being the most important type of plans they do - above yearly, weekly, daily and lesson plans. Teachers also noted that the plans were interdependent and of little value on their own. • Effective teachers seem to follow a similar planning procedure - 1. Problem-finding (where the teacher conceptualizes the plan based on consideration of content, goals, knowledge and experience) 2. Problem formulation and solution (where activities are designed, elaborated and adapted) and 3. Implementation (where plans are implemented and evaluated on an ongoing basis). Through reflection, activities evaluated positively become part of the teacher’s repertoire for incorporation into later planning. • Experienced teachers tend not to use formal written plans unless they are teaching unfamiliar content. Planning most often takes place in the form of mental dialogues, often outside of formal planning times. • Experienced teachers’ plans rarely include the specification of objectives. • Novice teachers spend most of their time developing detailed individual lesson plans (spending a lot of time on how to present the content) whereas experienced teachers focus more on the progression of lessons. • Experienced teachers try to anticipate potential difficulties and think through contingencies when planning. Novices generally do not have the depth of experience on the classroom to be able to anticipate situations that could occur. • Novice teachers rely more on written resources for guidance as they lack the pedagogical content knowledge of more experienced teachers. • Experienced teachers tend to be more child-focused (whereas novices focus on the activities of the teacher) and to devote more time to fewer tasks. • Most teacher education programs teach planning as a linear process which can be unhelpful when novices are confronted with the more messy reality of the classroom. The linear planning process often becomes overwhelming and time consuming. <p><i>Instruction</i></p> <ul style="list-style-type: none"> • Teachers who make the most decisions during planning tend to make the least decisions during instruction. • Decisions during instruction are made without time for reflection and so good decision-making requires that the teachers have an

	<p>extensive network of schemata.</p> <ul style="list-style-type: none"> • Teachers consistently make an instructional decision about every two minutes. • Experienced teachers make more decisions than novice teachers and their decisions are based on different criteria, generally with a much greater focus on skill acquisition. • Novices seem to focus more on keeping the class on task and on completing their written plans, experienced teachers make decisions based on assessments of student needs. • Experienced teachers generally remain more goal-oriented, whereas novices can be easily distracted from the goals. <p><i>Reflection</i></p> <ul style="list-style-type: none"> • Reflections of experienced teachers focus mainly on student comprehension and relate to instructional goals. Novices tend to focus more on their own teaching and when thinking about students they consider mostly their level of activity or engagement. • Novice teachers can tend to blame students for unsuccessful lessons. • Novice teachers sometimes struggle with reflection as they do not have an extensive knowledge of students, context and content. • Reflection not only promotes connections between planning and instruction, it also creates the knowledge structures necessary for effective planning and teaching in the future.
<p>Instructional Strategies - Critical Thinking</p> <p><i>Review of Educational Research Vol. 78, No. 4, pp. 1102 - 1134</i></p>	<p>Abrami, P., Bernard, R., Borokhovski, E. Wade, A., Surkes, M. Tamim, R. & Zhang, D. (2008) Instructional interventions affecting critical thinking and dispositions: A stage 1 meta-analysis.</p> <p>This article is a meta- analysis of studies on instructional interventions designed to increase students' critical thinking skills. The researchers did not investigate particular interventions in this analysis. The focus was on the effects of:</p> <ol style="list-style-type: none"> 1. Methodological aspects of the studies 2. Amount of training for teachers 3. Whether critical thinking skills were (a) taught as a separate course (<i>general approach</i>), (b) embedded in subject area course which also had explicit CT objectives (<i>infusion approach</i>) (c) embedded in course which did not have specific CT objectives (<i>immersion approach</i>) (d) taught in a <i>mixed approach</i> where students are taught subject area content, but the course has a specific thread aimed explicitly at teaching CT. 4. Presence or absence of collaboration between students 5. The method of extraction of effect size. <p>Here I will only summarize points related to 2, 3 & 4.</p> <p>Main Findings / Arguments:</p> <ul style="list-style-type: none"> • Groups where teachers received training in teaching critical thinking skills significantly outperformed group where the teacher had not been trained. This factor had the strongest between group effect of all the factors investigated.

	<ul style="list-style-type: none"> • There was a minor, though statistically significant advantage for groups where students were expected to collaborate as part of the instruction. • Mixed approaches, where explicit instruction in content was combined with explicit instruction in critically thinking skills significantly outperforms all other models of instruction mentioned in 3 above. The immersion method, where CT is regarded as a byproduct of instruction produced the smallest gains. Other methods had a moderate effect.
<p>Learning to Learn</p> <p><i>Journal of Educational Psychology</i> Vol. 100, No. 4, pp. 920 - 929</p>	<p>Schommer-Aikins, M. & Easter, M. (2008) Epistemological beliefs' contributions to study strategies of Asian Americans and European Americans</p> <p>This study compared the epistemological beliefs of American students of Asian descent with those of American students of European descent. The study further investigated the level to which there was a connection between epistemological beliefs, study strategies and achievement.</p> <p>Student beliefs in the following areas were investigated: (a) <i>speed</i> - ranging from the belief that knowledge can be gained quickly to the belief that the process of learning is gradual and requires effort; (b) <i>structure</i> – ranging from the belief that knowledge consists mostly of isolated facts to the belief that knowledge is integrated, complex, conceptual and sometimes ambiguous; (c) <i>construction</i> – ranging from the belief that knowledge is certain and passively received to the belief that knowledge is constantly evolving and that individuals must construct their own version of it; (d) <i>success</i> – ranging from the belief that the ability to learn is innate to the belief that learners can acquire study skills, and that learning requires effort, and; (e) <i>truth</i> – ranging from the belief that objective truth can be attained by scientists to the belief that there are seldom single right answers and all facts should be open to question.</p> <p>The following study strategies related to technique, motivation and self-regulation were investigated: (I) low anxiety, (II) positive attitude, (III) concentration, (IV) information processing, (V) high motivation, (VI) selecting main ideas, (VII) self-testing, (VIII) study aids and (IX) time management.</p> <p>Main Findings / Arguments:</p> <ul style="list-style-type: none"> • Of the knowledge-related beliefs investigated, two turned out to be significantly different for the two cultural groups: <ul style="list-style-type: none"> - <i>speed</i> - European Americans believed more strongly that learning takes time than did Asian Americans - <i>structure</i> – European Americans believed more strongly that knowledge is organized as a complex network of concepts. • With regard to study strategies, the two cultural groups differed in three important areas: <ul style="list-style-type: none"> - <i>low anxiety</i> - European Americans were better able to control their anxiety about school - <i>selecting main ideas</i> - European Americans were better able to select main ideas - <i>information processing</i> - European Americans were better able to select appropriate information processing strategies • The study also found some other differences between these two cultural groups as well as uncovering some differences between male

	<p>and female students.</p> <ul style="list-style-type: none"> • The key finding was that statistical analyses indicated that particular beliefs about knowledge did indeed tend to translate into particular approaches to learning. For example, <i>speed</i> predicted <i>low anxiety</i>. The more students believed that learning is a gradual process, the less anxious they were about learning. • Further, these differences in approach to learning also translated into different levels of achievement. In a business studies course where much of the assessment consisted of relatively open-ended tasks involving critical thinking, the European American students outperformed their Asian American counterparts.
<p>Instructional Strategies - Literacy Thinking Skills</p> <p><i>Harvard Educational Review</i> Vol. 78, No. 1, pp. 84 - 106</p>	<p>Conley, M. (2008) Cognitive strategy instruction for adolescents: What we know about the promise, what we don't know about the potential</p> <p>This article examines the use of cognitive strategies with adolescents. The author discusses the difference between using cognitive strategies as a teaching tool (to help students understand content) as opposed to as a learning tool (to help students learn how to think strategically and manage their own learning and thinking).</p> <p>Main Arguments</p> <ul style="list-style-type: none"> • Schools and teachers are overly fixated on teaching students topics rather than teaching them how to think. • An example is given using two lessons around the use of graphic organizers. <ul style="list-style-type: none"> - In the first example, the teacher walks the students through the steps of using a concept map. - In the second example, the teacher explicitly teaches the students how to use the graphic organizer as a tool to organize their thinking. The teacher models this, thinking out loud as she does. She explains how the strategy is useful for learning and then hands responsibility for developing it further to the students. • The key difference between the two examples is “between treating strategy instruction as rehearsal – doing a teaching activity step by step... in the hope that somehow it will stick with students – versus considering cognitive strategy instruction as a deliberate action to develop in students a critical understanding of subject matter ideas <i>and</i> a cognitive approach to learning”. • Content area textbooks often blur or omit this distinction between teachers’ instructional actions and students’ cognitive strategies. • In PD situations, even when viewing examples of gifted teachers making use of cognitive strategies with students, teachers often reinterpret what is happening as a set of possible steps for transmitting content.
<p>Leadership / Professional Learning Community</p>	<p>Mullen, C. & Hutinger, J. (2008) The principal’s role in fostering collaborative learning communities through faculty study group development.</p> <p>This paper draws on a broad range of research to both advocate the use of faculty study groups (defined as groups of faculty members who gather to discuss student work, instructional strategies, and school-wide goals and initiatives) as a strategy for building professional learning</p>

<p><i>Theory into Practice, Vol. 47, pp. 276 - 285</i></p>	<p>community (defined as “a collaborative effort that uses research and school data to guide decisions that support student and teacher learning”) and to outline the roles principals need to take to ensure the success of such study groups.</p> <p>Main Arguments:</p> <p><i>Advantages of study groups</i></p> <p>Study groups:</p> <ul style="list-style-type: none"> • can shift the primary focus of professional development from stand-alone workshops to teacher learning that is embedded in daily practice, promoting direct links to quality instruction and student learning • is inclusive of all faculty members • are a vehicle for “coordinating adult learning with student needs, adopting research-based strategies, enhancing teachers leadership and building community and common vision aligned with school goals” • facilitate teacher learning in a way that one of workshops never can, because the study groups are ongoing and thus facilitate regular, structured discussion and reflection. <p><i>Role of principals in making study groups successful</i></p> <p>Principals should:</p> <ul style="list-style-type: none"> • work with the faculty to create a shared vision and specific goals for student learning • establish guidelines that encourage group members to work together collaboratively • establish patterns of distributed leadership • analyze student data to identify and prioritize areas of student need which can drive teacher learning • create supportive structures which ensure time for uninterrupted meeting and other necessary resources • establish themselves as a contact point to outside knowledge from universities, corporations and community agencies • participate in study groups themselves and learn alongside teachers • regularly dialog with the study groups about goals, review teachers’ action plans and logs and give feedback and direction to groups and individuals