

RESEARCH AREA & SOURCE	DESCRIPTION & MAIN FINDINGS / ARGUMENTS
<p>Leadership / Curriculum Development / Curriculum Implementation / Teaching Strategies (General)</p> <p><i>Submitted to Education Queensland by the School of Education, University of Queensland</i></p>	<p>Queensland School Reform Longitudinal Study (2001)</p> <p>This study investigated 975 classrooms in 24 schools in Queensland, Australia. The study mapped backwards from student outcomes to pedagogy and assessment to school organizational capacity and leadership to determine what factors had a positive impact on student learning. The vision for student performance was largely based on the criteria developed by Newmann and Associates in their work on Authentic Achievement. The categories developed by Newmann were extended and refined. Two of these revisions are of particular interest. One was to include descriptions of social learning as well as academic learning. The other was to extend the idea of connection to the real world to a much broader vision of connectedness including to the world beyond school to other subject areas, to students' background knowledge etc.</p> <p>Main Findings:</p> <ul style="list-style-type: none"> • A majority of teachers rate basic skills of numeracy and literacy as being their primary goal and social skills as being their second most important goal. The study found an overemphasis on the 'basics' to be counterproductive. Without a greater focus on more complex learning goals, these will never be achieved. • General levels of 'productive pedagogy' and hence 'productive performance' as defined by the study were low in schools. • Teachers tended not to see assessment as an integral part of good practice • Teachers tended to harbor a number of misbeliefs including that behavior management must be taken care of prior to considerations of classroom practice and that the achievement of academic and social goals required some kind of 'trade off' • Leadership in schools tended not to focus on learning • There was no strong emphasis in classrooms on intellectual quality or connectedness, though social support for learning in schools was generally rated highly. • Many assessment tasks set by teachers do not require the application of complex skills or higher order thinking. • The study developed a model of school leadership (which they called productive leadership) with 9 dimensions based on analysis of the 24 schools. This model was able to account for 96.2% of the variance between schools. The dimensions were: <ol style="list-style-type: none"> 1. A focus on pedagogy - from strong to weak 2. A focus on structures and strategies – (to facilitate the smooth running of the school) - from high to low 3. A focus on a culture of care (in particular emotional support for teachers and support for teacher risk-taking) – from high to low. 4. A focus on supporting professional development and learning community – from strong to weak. 5. Nature of change commitment - from focused and thick (where fewer changes are implemented in a more considered way) to

	<p>widespread and thin.</p> <ol style="list-style-type: none"> 6. Hot / Cold knowledge as a basis for change; pedagogy - from hot knowledge of pedagogy which is grounded in practice) to cold (disconnected from practice) 7. Hot / Cold knowledge as a basis for change; political – from hot (knowledge of the political scene including the local community and society more broadly) to cold (disconnected from political contexts) 8. Commitment to dispersal of leadership – from strong to weak 9. Relationships amongst school community (teachers, students, parents, administrators and others) – from involved to aloof. <ul style="list-style-type: none"> • Schools tended to form three clusters when analysed for leadership - low leadership (on all dimensions), incoherent leadership (having a managerial focus, without the corresponding concern for pedagogy and professional development) and coherent leadership (with a strong focus on structures and a focus on pedagogy and commitment to change). • No correlation was found between the construct of productive leadership and student productive performance. The researchers speculate that since the relationship of leadership to learning is indirect, perhaps their measures were not sensitive enough to capture it. • A number of individual dimensions of the model were related to student performance, however. They were as follows: <ol style="list-style-type: none"> 1. Highly structured leadership was correlated with low recognition of difference and low levels of citizenship as exhibited in student performance. 2. A high culture of care was correlated with higher levels of transformative citizenship. • The following correlations could be seen between individual dimensions of leadership and productive assessment in classrooms: <ol style="list-style-type: none"> 1. Culture of care is related positively with integration of knowledge (connectedness) and an audience beyond the school. 2. Dispersal of leadership is related to a decrease in the integration of students' background knowledge into tasks and less consideration of alternatives built into task design. The researchers find this puzzling, but something which needs to be considered and further investigated. They say it is possible that an increase of dispersal of leadership focused on managerial aspects may lead to increased burdens on teachers which may then negatively impact on assessment practices.
<p>Curriculum Development</p> <p><i>Jobs For The Future</i> (www.jff.org)</p>	<p>Education and Skills for the 21st Century: An Agenda for Action (2005)</p> <p>This is a document available through ERIC or direct from the website of Jobs for the Future. It gives statistics related to the state of education in the United States and outlines pathways to achieve better results in the future.</p> <p>Main Arguments:</p> <ul style="list-style-type: none"> • The knowledge economy requires workers with higher skills than previously necessary • The fastest projected rate of growth in jobs is in highly paid professions (\$40,000+) requiring the highest levels of skills (20%pa as compared with 12 % in well-paid {\$25,000 - \$40,000} jobs and 15% in low paid jobs).

	<ul style="list-style-type: none"> • Current inequities mean that because of race, socio-economic background and a variety of other reasons many students can never reach their potential • The future requires that all students achieve better outcomes. All students need to graduate from high school prepared to succeed in further learning. • Schools need to provide students with early exposure to and experience in college and careers through partnerships with colleges and workplaces. • Career and technical education must become a quality option with equal parity of esteem. • Students need a strong foundation in Math, English, information gathering, communication, critical thinking, problem solving and interpersonal and self-directional skills.
<p>Curriculum Development</p> <p><i>MultiMedia Schools 10,2,14 - 18</i></p>	<p>Murray, J. (2003) Contemporary Literacy: Essential Skills for the 21st Century.</p> <p>This article quotes the White Paper resulting from the 21st Century Literacy Summit in March 2002 as stressing the importance of competence in information literacy and the use of information and communication technologies.</p> <p>Main Arguments:</p> <ul style="list-style-type: none"> • Knowledge is changing so fast that no traditional curriculum can provide students with fact-based learning adequate for the challenges they will face. • The Big6 Skills for information problem solving (http://www.big6.com) were endorsed as exemplary practice at the 21st Century Literacy Summit and by the National Technology Plan (released by the U.S. Department of Education in December 2000). • The Big6 Skills enable students to ‘purposefully access information from a variety of sources, analyze and evaluate the information, and then integrate it to construct a personal knowledge base from which to make intelligent decisions. • Some schools have created information literacy curricula. • Library media specialists are best placed to implement information literacy skills in the curriculum.
<p>Curriculum Development</p> <p><i>European Journal of Education 42.2.235 - 254</i></p>	<p>Tuomi, I. (2007) Learning in the Age of Networked Intelligence.</p> <p>This article gives a fresh perspective on the changes society has undergone in moving from an industrial age to an age of knowledge / information. The author outlines a theoretical perspective on innovation and follows this with ten theses about the future of education based on this perspective.</p> <p>Main Arguments:</p> <ul style="list-style-type: none"> • We will soon be living in a world where knowledge is available wherever and whenever we need it. • The economy of the future will be increasingly distributed geographically (based on global networks rather than physical proximity of resources or human capital) and innovation will be the key source of economic value (because globalization leads to greater cost competition).

- It is possible that education systems are optimized for yesterday's world and may be dysfunctional in tomorrow's.
- A traditional model of innovation assumes that an original creative insight is followed by product development and dissemination. In practice, this is rarely the case. Studies on innovation show that the key to innovation is the social adoption (which could more appropriately be termed user-centric innovation, knowledge creation and learning) of new technological opportunities.
- Innovation increasingly occurs in multidisciplinary projects where complementary bodies of knowledge are brought together.
- The creative act that makes an innovation 'real' occurs when user communities change their social practices.
- Education policies that follow a traditional model of innovation emphasize specialization and industrial application of knowledge by individuals. A more 'downstream' model would emphasize social learning and knowledge creation within communities of potential users.
- The demand for 'innovativeness' has created tensions in education systems. In its socialising function, education has often made use of 'transfer' of knowledge from teacher to student. Innovation requires that knowledge that is new to society be generated.
- Innovation in the future will require that new products and technologies need to be designed so that potential user communities can easily create the innovative adaptations necessary for their use, which will include designers including pedagogic models into their design.

Ten theses about learning in the future:

1. Education becomes global
3. Blogs become more important than formal certificates
 - Individual capabilities often have their origin in the individual's ability to mobilize social resources - knowing the right expert rather than being an expert. Electronic track records will prove peoples' 'social capital'.
6. Immersive social games replace the textbook
 - Play has a critical function in cognitive development. Pedagogies aimed at transfer have emphasized disciplined learning and the textbook was the artifact that synchronized a group of learners in a mass-production learning environment. Innovation requires the development of cognitive capabilities and this will mean the dynamics of play will need to be integrated into educational practices. Play can simulate the real world and provide a platform for skill and knowledge creation. Play can create social micro worlds that can increase skill in mobilizing social resources and socially distributed knowledge.
10. Educational programmes become integrated with real social change
 - There is growing evidence of a disconnect between school learning and performance outside school. The innovation economy demands that students gain the capacity to change social and economic realities since development is not so much driven by new technology as it is constrained by the capabilities of social institutions to change. In the global economy, the speed of change will become an absolute competitive advantage. Skills and knowledge from inside and outside school must

	become increasingly integrated.
Leadership / Teaching Strategies (General) <i>The Sydney Morning Herald</i> September 10, 2007	Gittins, Ross. It takes more than money to make the world go round. This article summarizes work done by Professor Bruno Frey at the University of Zurich on motivation. Main Arguments: <ul style="list-style-type: none"> • In situations where intrinsic motivation is important, introducing extrinsic rewards can ‘crowd out’ that intrinsic motivation. • Three processes account for the way this ‘crowding out’ takes place: <ol style="list-style-type: none"> 1. when individuals perceive the external intervention to be controlling, in the sense that it reduces the extent to which they can determine their own actions, then the extrinsic reward substitutes for intrinsic motivation 2. if outside intervention implies that the person’s own intrinsic motivation is not acknowledged, the person can feel their competence is not appreciated, their self-esteem can be impaired and their intrinsic motivation can be undermined. 3. if an intrinsically motivated person is deprived of the chance to exhibit their motivation to others it can be undermined. • The effect is not always negative. External intervention can increase intrinsic motivation if the person involved perceives it to be supportive as this can foster self-esteem and self-determination. • The undermining effect will exceed the supportive effect the more that the rewards are expected, the more conspicuous the reward is, the more conditional the reward is on performance, the more deadlines and threats are used, the more intensive the surveillance is and the more routine the work is that is being rewarded. • The more highly motivated a person was before the reward was offered, the more the intrinsic motivation is likely to be undermined. • Monetary rewards are more undermining than other material rewards. • Praise and social approval tend to be perceived as more supportive and less controlling. • When intrinsic motivation is undermined the person is likely to substitute quantity for quality, is likely to learn less about complex tasks and is likely to be less creative. • A ‘motivational transfer effect’ exists, where the undermining of intrinsic motivation can spread to other areas of a person’s involvement.
Brain Research <i>Science Daily,</i> September 28, 2007	Music and Language Are Processed By The Same Brain Systems Researchers used familiar and unfamiliar melodies containing notes which violated the listener’s memory of the melody, but not the rules of harmony and other melodies with notes that violated the rules of harmony. Brain waves of listener’s were monitored and the results were compared to similar tests that had been done using violations of language rules. Main Findings: <ul style="list-style-type: none"> • The two aspects of music, rules and memorized melodies depend on two different brain systems. • The same brain systems underlie rules (eg grammar) and memorization (eg vocabulary) in language.

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