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Abstract

This paper draws on data from a doctoral study exploring how schools approach the development of self-regulated learning (SRL) for secondary school students. Selfregulation is becoming increasingly important as we move towards technologically driven self-directed learning environments, where greater amounts of autonomous learning may be necessary. Equipping students with self-regulation skills that help them navigate the increasingly complex and demanding mire of school academic expectations and assessments in a way that makes their school experience more efficient, less stressful and ultimately more rewarding, has been demonstrated to be a worthwhile pursuit (Zimmerman 2002). The research presented in this paper explores students, parents and teachers' attitudes, beliefs, and perceptions around the development of SRL in contemporary secondary schools and in particular the perceived roles of students, parents and teachers. The findings emphasize the need for schools to clarify roles and determine explicitly how the goal of developing selfregulated learners is to be met by the school. This research outlines the importance for schools to communicate the expected roles for parents, teachers and students in developing self-regulated learners, in order to ensure the community has a shared understanding of the approach taken by the school. The necessity for parents, teachers and students to receive training and support in developing SRL, to ensure they have appropriate tools to fulfil the stated roles, is also highlighted. To date there has been little exploration of the attitudes, beliefs and actual perceptions of students, parents and teachers with respect to SRL, especially in contemporary, Australian secondary contexts. This study therefore leads to greater insights of the roles parents, teacher and students may play in developing SRL, challenging traditional assumptions as to where responsibility for developing SRL may lie in contemporary schools.

Introduction

Research into understanding the concept of self-regulated learning has fostered indepth exploration of the constructs that contribute to a definition of this area. While Zimmerman (1986) originally introduced self-regulated learners as those who are metacognitively, motivationally and behaviourally active participants in their own learning process, the following quote describes the evolution of self-regulation:

The attainment of optimal academic performance requires more than high quality instructions and requisite mental ability on the part of students: it requires personal initiative, diligence, and self-directive skill. Research on self-regulated learning grew out of efforts to understand the nature and source of these forms of students' proactivity, and it has revealed evidence of substantial correlation between their use and academic achievement. Self-regulation refers to self-generated thoughts, feelings and actions that are planned and cyclically adapted to the attainment of personal goals (Zimmerman 2002a p.85).

The field has traditionally focused on defining and measuring self-regulated learning and subsequently, exploring experimental, targeted in-class interventions to foster self-regulated learning. There is little understanding, therefore, of how contemporary Australian secondary schools are approaching the development of students as selfregulated learners in the context of the 21st century learning environment, or whether they even see the need for this role. The focus of the research up to this point in time has been on interventions with individual teachers in specific learning contexts, not a whole-school approach.

In Australia there is no nationwide 'self-regulated learning curriculum' or a policy on how schools should approach the development of self-regulation skills. The Australian Government Department of Education, Employment and Workplace Relations website covering school education states 'Australia's future depends on a high quality and dynamic school education system to provide students with foundation skills, values, knowledge and understanding necessary for lifelong learning, employment and full participation in society' (Commonwealth of Australia 2010). However, foundation skills are not defined and, while there are policies for Numeracy and Literacy, 'learning-to-learn' or self-regulation skills are not addressed. The NSW Department of Education's Quality Teaching Model includes students' self-regulation as one of the 18 elements for good classroom and assessment practice (NSW Department of Education 2003). Yet the documentation provides little guidance on how to foster this self-regulation or an explanation of what schools are currently doing in this area. As there is not a consistent policy in Australian secondary schools towards the development of these skills, approaches taken by schools can vary widely with a notable lack of school-wide procedures (Salter 2012).

This means that there is no guarantee that the needs of students who enter secondary schools without the necessary 'learning-to-learn' skills will be met (Zimmerman 2000). Zimmerman discusses the increased demands facing students in high school and states 'many students respond to these increasing demands for self-regulation by adopting effective learning strategies, but a significant number of students do not adopt them' (2002c, p.3). Although many students display deficiencies in the area of self-regulation, Schunk and Ertmer (2000) point out that training in this area is often

not given in schools due to inadequate time, space, funding, parental support or the belief that students do not require self-regulation.

A study by Kember, Jamison, Pomfret and Wong (1995) investigating the relationship between learning approaches, time spent studying and grades, found that students with inefficient approaches to study worked long hours yet achieved poor grades. These students may lack effective strategies but also may not employ existing strategies appropriately (Nolen 1988). The importance of learning skills in academic performance is emphasized in a study by Tait and Entwistle (1996), who explored the idea of a computer program to identify students whose study skills and strategies were ineffective so that appropriate support could then be provided. Renzulli and Reis (1985) stressed the importance of teaching gifted and talented students 'learning-howto-learn' skills that promote active learning of new information. However the research suggests that skills development is most effective when integrated into the curriculum rather than included as a 'bolt-on' extra-curricular activity, separated from subject content and the process of learning (Wingate 2006).

A dual role is essential for all teachers: teaching subject content and how students should learn in order to maximize students' chances of reaching their academic potential in that subject (Weinstein 1988). Weinstein, Ridley, Dahl and Weiner (1988) point out that many students do not develop effective learning strategies unless they receive explicit instruction in their use. Indeed, Schunk mentions: 'Self-regulation does not develop automatically with maturation nor is it acquired passively from the environment' (2001, p.142). Research over the last four decades points to the continued importance of teachers' assistance in developing students' strategies for learning (Miller et al 2009; Romeo 2004; Weinstein & Mayer 1986).

As there is no mandated policy in place, it is up to individual schools to determine if and how they will approach the development of self-regulated learning. Many schools leave it up to individual teachers. Zimmerman points out that despite research findings supporting the importance of students' use of self-regulatory strategies, 'few teachers' effectively prepare students to learn on their own' (2002b, p.69). There are a number of reasons postulated. Firstly, it may not occur to some teachers that specific strategy development might be required. Brown et al (1983) argue that many educators falsely assume that effective learning and study skills will automatically come with maturity and experience. Secondly, some teachers may not believe it is part of their role as subject matter experts to do this and that with the crowded school curriculum, there is only time to focus on the prescribed content itself – not generic strategies for learning, which students should either know or acquire outside of the subject content classroom. Thirdly, many teachers themselves are under-skilled in this area and do not feel confident teaching learning strategies to students. In the higher education arena, Tait and Entwistle (1996) found that when poor student performance was attributed to ineffective study skills, few academic staff felt confident to provide advice on these matters and that the perceived time constraints meant they believed they only had time to focus on the syllabus. Lastly, focusing on explicit self-regulated learning skills development appears to some extent to have been an unfashionable approach as the focus of teaching in classrooms becomes more centred on discovery and experiential based learning. Schunk and Zimmerman outline the issues as follows:

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Educators generally accept the important role in behaviour played by students' self-regulatory activities, but they often do not know how to teach students self-regulatory skills or how to otherwise enhance students' use of self-regulation principles in classrooms or other learning settings. This lack of knowledge stems from several sources. Teacher education programs typically emphasize content-area knowledge and mastery of pedagogical methods, and focus less on principles of learning, development, and motivation. Second, teachers typically feel overwhelmed with the sheer amount of material they are expected to cover, which leads them to forgo teaching self-regulation and other topics that are not required. Finally, few students and parents realize that self-regulation can be taught as a skill, and as a result these groups put little pressure on schools to offer self-regulation instruction as part of the curriculum (Schunk & Zimmerman 1998, p.vii).

As stated by Zimmerman (2002b), a number of students appear to have many learning skills in place when they arrive in secondary school, but students seldom receive instruction in methods of study or other self-regulatory skills and evidence suggests that without assistance, many students fail to acquire these skills. Paris, Byrnes and Paris (2001) postulate that students learn strategies for SRL through both invention and instruction. They may have developed these skills during the primary school years, from family members, particular teachers, external courses or some other unknown source; the source of development is unclear as there is little research examining the varying sources of this strategy development in secondary students. A study by Wood, Motz and Willoughby (1998) found that in a group of high school students, 42% cited their study strategies as being self-taught, 28% recalled learning from parents and siblings while 20% cited teachers and educational institutions as their strategy influence.

However, it is the students who have not and do not develop self-regulated learning skills who are of concern. If the school does not play an active role, many of these students will struggle with the demands of the school system and in particular, with assessment systems. Wigfield (1994) stresses that helping students become self-regulated learners is an important educational task, as 'students who are self-regulated are more likely to use effective learning strategies, be meaningfully engaged in their own learning, and attain their academic goals' (p.101). Zimmerman and Martinez-Pons (1989) demonstrated that self-regulatory processes are an important source of achievement differences among students, while more recently, Zimmerman and Cleary (2009) found that children who are able to regulate their behaviour in school tend to achieve better and have other positive personal development outcomes.

Weinstein (1996) raised the point that self-regulation is becoming increasingly important as we move towards technologically driven self-directed learning environments, where greater amounts of autonomous learning may be necessary. Self-regulated learning has been described as one of the key competencies contributing to maintaining life-long learning skills (EU Council 2002) and use of self-regulated learning strategies has been shown to be a strong contributor to academic achievement in school (Zimmerman & Martinez-Pons 1986).

This doctoral study explores the current state of play in the Australian context and how one secondary school has approached the development of students as learners. It explores their approach through the lens of self-regulated learning in the context of the

21st century learning environment and uncovers the stakeholders' attitudes and beliefs around this topic.

Self-regulated students focus on how they activate, alter, and sustain specific learning practices in social as well as solitary contexts. In an era when these essential qualities for life-long learning are distressingly absent in many students, teaching self-regulated learning processes is especially relevant (Zimmerman 2002b p.70).

The Study

A mixed-methods approach was used in this interpretive study. Data was obtained across two phases. Phase 1 was an online survey of 54 Years 7-12 schools in the Sydney metropolitan region. The purpose of this first phase was to aid in preliminary data collection on approaches schools take to developing SRL, and to facilitate case selection. Findings relating to Phase 1 are reported in Salter (2012). Phase 2 of the study explored through a case study a whole-school approach to SRL development of an Australian secondary school. From the 54 schools participating in Phase 1, one school was selected as a purposeful sample (Patton 2002) as the case to be studied in Phase 2. This case school was selected from the Phase 1 participants as this school demonstrated a significant number of proactive whole-school approaches to fostering SRL.

A second school also demonstrating a number of proactive approaches to developing SRL was also selected from the Phase 1 participants to participate in a preliminary pilot study. The pilot school was located in south Sydney and was a Year 7-12 academically selective boys school with a multicultural population representing over 30 different cultural groups. According to teachers at the school, students had traditionally demonstrated high self-efficacy and strong motivation for their studies.

The case school selected for Phase 2 was an Australian co-educational, nongovernment secondary school in Western Sydney, with a student body from many different racial and socioeconomic backgrounds. Since establishment of the school in 1988, final examination results had been consistently below state average and unlike the pilot school, students had been perceived by teachers as having low self-efficacy and motivation for academic studies. Six years ago, with the appointment of a new principal, the school radically overhauled their approach to helping students become better learners.

To obtain multiple perceptions and verify interpretations (Stake 2005) during this case study, the following methods were used: questionnaires for students, parents and teachers, semi-structured interviews of teachers and school executives, observations and document gathering. Twelve 40 minute interviews were undertaken with executives and teachers; and observations of three lessons, three meetings and an assembly were undertaken. The data collection was spread across the 2012 school year in order to allow time to incrementally analyze the data and let each stage inform the next (Merriam 2009). Data was coded and analyzed thematically.

This paper focuses on findings emerging from analysis of the Phase 2 case study survey data, exploring students, parents and teachers' attitudes, beliefs, experiences and perceptions around the development of SRL in contemporary secondary schools

and in particular the perceived roles of students, parents and teachers. From a student body of 950, 256 (27%) students (age range 12-18) voluntarily completed the anonymous survey of five open-ended questions and 59 parents and 24 teachers also participated. Data from the pilot study school has also been included in these findings for illustrative purposes. From a student body of 930, 272 (29%) students (age range 12-18) from the pilot school voluntarily completed the online anonymous survey of five open-ended questions and 23 parents and 8 teachers also participated.

Findings

Findings emerging from analysis of the case study survey data demonstrated that there were diverse views as to whose role it is to develop self-regulated learners. These viewpoints varied both within and between each of the parent, student and teacher groups. Perspectives of each of these groups and the implications of their views are discussed in the following sections.

The majority of parent participants (n=59) did not believe any responsibility for SRL development lay with the students, instead they viewed it as a shared responsibility between parents and teachers (see Figure 1). The remainder of the parent respondents had widespread opinions as to whose responsibility it was to develop self-regulated learners. In contrast, as shown in Figure 2 below, over a half of the student participants (n=256) believed the responsibility for being self-regulated was at least in part their own responsibility. A third of the student participants believed it was a joint responsibility between students, parents and teachers, a quarter believed both students and teachers were responsible, while a quarter believed this should be the sole province of the teachers. Figure 3 below illustrates that half of the teacher participants (n=24) believed students did have some responsibility with a third of teacher participants expressing the view it was a joint role between parents, teachers and students, while a quarter saw it as joint responsibility between teachers and parents. These findings are explained below and further discussed in the implications section of this paper.

Part 1: Parents' Perceptions of Whose Role it is to Develop Students as Self-Regulated Learners

While there was a clear majority view amongst the parents as to whole role it is to develop SRL, there was also a wide diversity of views as shown in Figure 1.

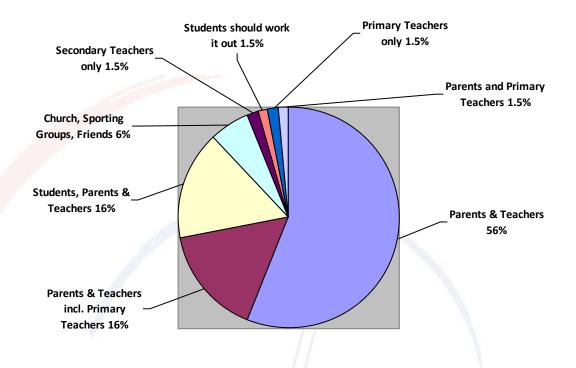


Figure 1: Parent perceptions: whose role it is to develop SRL skills (n = 59).

Of the 59 parents who responded, 16% believed developing students as self-regulated learners was a joint responsibility between parents, students and teachers with one parent explicitly outlining their view of the differing roles of each party:

The school's role would be to encourage these skills and create the learning environment that supports and facilitates such skills. Parents have a role to play in also ensuring that they create an enabling and supportive environment and show an interest at all times in their children's learning. I also believe the student needs to take on some responsibility (Respondent 22/59 of parent survey 2012).

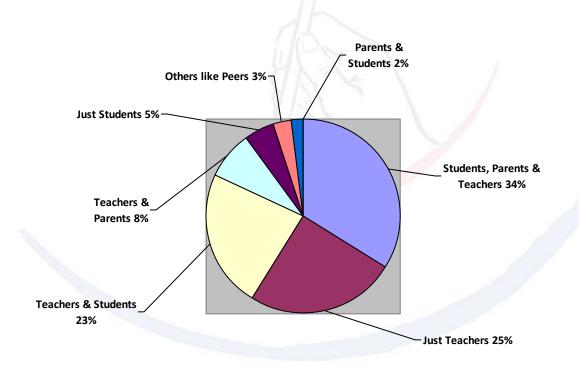
However, 72% of parents emphasized a dual role between parents and teachers, with one parent explaining that 'both the home and school environment needs to be consistent for the message to get through and the behaviour to change' (Respondent 3/59 of parent survey 2012). It was interesting to note, given the 'self' in SRL, that such a large percentage of parents did not see this role as being shared by students, unlike the majority of student and teacher respondents. 16% of these parents respondents specifically mentioned both primary and high school teachers as both having a role to play in the development of SRL. These parents emphasised that it was important for students to lay the foundations and get into good habits before transitioning to secondary school.

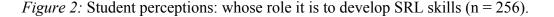
Many of the parent participants who supported a dual role between themselves and the school also expressed doubt about how helpful parents could actually be. They explained that they often lack the time, expertise and confidence to teach these skills to their children and expressed the desire for greater communication from the school explaining how they could help with particular issues their child was facing. A number of parents also believed the school was the appropriate place to develop these skills in situ, addressing the different needs and levels of the students. One parent explained: 'Many parents are time poor and aren't conversant with the methodology of education' (Respondent 4/59 of parent survey 2012).

A few parents had differing viewpoints. One parent believed that community involvement such as church and sporting groups also contributed to SRL development, another focused on the role of friendships, while another stated that students 'should use whatever avenue presents itself' (Respondent 9/59 of parent survey 2012). Other parents did not feel the secondary school had a role to play. One parent believed it was a role to be shared between parents and primary schools only, while another parent believed it was the sole province of primary schools 'as when they hit high school, it is too late' (Respondent 45/59 of parent survey 2012).Only one parent believed it was up to the students 'to work it out themselves' (Respondent 55/59 of parent survey 2012).

Part 2: Students' Perceptions of Whose Role it is to Develop Students as Self-Regulated Learners

Figure 2 displays the range of students' viewpoints on whose role it is to develop SRL.





A third of the 256 student respondents believed developing SRL was a shared role between students, parents and teachers. One student explained:

It is a student's role to manage their own work and learning; organisation, time management and commitment are the basic necessities for pushing one's self to achieve. However it is pertinent for parents to support and help sustain the students focus and a suitable studying environment. A school has the role to give the student the information ad he techniques to derive knowledge from and learn, so that when the time comes they are prepared to perform at their best (Respondent 227/256 of student survey 2012).

However a quarter of the student respondents believed developing SRL was the province of the teachers, with one student expressing this view: 'I think it's the teacher's role to keep us motivated, organised and help us manage our time effectively' (Respondent 54/256 of student survey 2012). This demonstrated that a significant portion of these students were not prepared to take any responsibility for the development of their own SRL skills, nor did they place expectations on their parents.

Almost another quarter of the students believed it was a joint role between students and teachers: 'The school should provide basic guidelines on how to study, be motivated etc. but it is up to us as students to motivate ourselves and set goals' (Respondent 63/256 of student survey 2012). The respondents in this category did not feel the parents had a role to play: 'I think it is the teacher's role to keep me motivated to want to learn and engage and participate in the learning in class. However, it is my role to keep organised, manage my time effectively, study and set goals because it is my schooling not my parents' (Respondent 151/256 of student survey 2012).

The majority of students felt that it was at least in part the teachers' responsibility to develop SRL as only 10% of the student participants believed the teacher did not have a role in developing self-regulated learners as one student explained: 'I believe it is my responsibility to be motivated, organise, manage my time, study, and set my own goals. I don't believe the school has a role in this part of my learning' (Respondent 182/256 of student survey 2012). 36% of students did not believe that they personally had any role in developing their own self-regulated learning skills with one student stating the role is 'a combination of the school and parents - they have more experience and knowledge' (Respondent 26/256 of student survey 2012). However a small group (5%) believed it was solely up to them: 'I think it's my role to help myself learn in these ways because you can't be forced to do work, it's self-motivated. It is my future and no one else can do it for me' (Respondent 33/256 of student survey 2012).

Part 3: Teachers' Perceptions of Whose Role it is to Develop Students as Self-Regulated Learners

As with the students, the largest consensus with teachers was that developing SRL is a shared responsibility between teachers, parents and students. Unlike the parent and student respondents, none of the teachers believed that developing SRL was solely the province of the students.

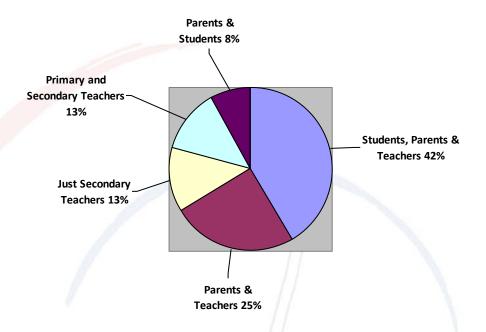


Figure 3: Teacher perceptions: whose role it is to develop SRL skills (n=24).

Although only 24 teachers completed the survey questions, it was interesting to see the range of responses within even such a small sample. 42% of the teacher respondents believed it was the joint responsibility of the school community to develop students as self-regulated learners: teachers, parents and students all had a role to play. One teacher explained: 'It is my belief that it takes a 'village to raise a child', and there are valuable contributions that can be made by everyone in the community' (Respondent 5/24 of teacher survey 2012).

However, 13% of teachers believed the responsibility should lie solely with the secondary school teachers and school leadership, one teacher emphasizing that 'it is a whole-school task if the development is to happen' (Respondent 9/24 of teacher survey 2012). An additional 13% of teachers also thought it was the responsibility of teachers but cited both primary and secondary teachers. Only 8% of teachers believed the primary responsibility was with the parents as 'parents set the standard from a young age' (Respondent 4/24 of teacher survey 2012), while also conceding that teachers also had a role as 'many parents lack the skills and understanding to foster this in their children' (Respondent 1/24 of teacher survey 2012).

One teacher expressed the following opinion which echoes the need to develop the 'skill' and the 'will' in students:

In terms of developing a positive attitude towards self-regulated learning skills, a child must firstly develop the skills required and then develop the motivation to use those skills. This is where the school needs to have a regulatory process in place to hold the students accountable for their behaviours. Schools need to develop processes so the completion of learning activities 'is just what we do'. It is not dependent on the parents cajoling their children to complete the work in a negative environment. If

the school has a process where there are real and consistent consequences for non-completion, they complete the expectation. Then, over time, they develop normalcy about that behavior (Respondent 1/24 of teacher survey 2012).

Discussion

There has been little research into the attitudes, beliefs and perceptions of students, parents and teachers with respect to SRL, especially in contemporary, Australian secondary contexts. This study therefore leads to greater insights into the perspectives and views as well as the roles each group may play in developing SRL, challenging traditional assumptions as to where perceptions of responsibility for developing SRL may lie in contemporary schools.

As all teachers, parents and students bring different experiences to their perception of who is responsible for developing SRL, it is not possible to generalize from this study. Appendix 1 illustrates the differences in viewpoints between the data from the pilot school and the case school highlighting the marked difference that may occur in perspectives between different schools. This study demonstrates the need for schools to interrogate the views of stakeholders in order to understand expectations of their particular school community and to inform the approach taken by the school to developing SRL. An important finding from this research was that few in the school community believed it was solely the province of the student to develop their own self-regulated learning skills, with most stakeholders believing that both parents and teachers had a role to play. This strengthens the argument for the need for further investigation into a whole-school approach to developing SRL and how the school can provide the support that students, parents and teachers need.

While there was consensus that students alone are not responsible for developing their own SRL skills, the findings illustrated diverse views between students, parents and teachers as to how this responsibility should be shared. This highlights the need for schools to clarify the roles they require of their teachers, students and parents in developing self-regulated learners and explicitly communicate these expected roles to all parties in order to ensure the community has a shared understanding of the particular SRL approach taken by the school. Without this transparency, there will be conflicting views within and between each group, unmet expectations and a poor chance that students will develop as self-regulated learners. A cohesive and consistent approach would ensure that all students and teachers in the school were clear what their school expects of them and parents also would know what they could expect from their school and how they too will be expected to contribute. Once the school had clarified expectations and communicated these to all parties, a plan would need to be established to provide appropriate training and support in developing SRL to all parties, to ensure all parties had the appropriate tools to fulfill the roles outlined by the school. The research also highlights the need for secondary schools to further explore the role of primary schools in developing self-regulated learners and if this role is feasible given the nature of transition in Australian secondary schools.

A number of possible future directions for research are therefore indicated. Large scale studies interrogating the viewpoints of students, parents and teachers regarding their roles in the development of students' SRL skills could uncover generalisations to be made across particular demographics¹¹ Greater investigation is also needed to

determine how schools can best clarify and communicate their approach to developing SRL, given the particular viewpoints of their community. Exploring effective whole-school approaches to developing SRL would also be a significant step forward in broadening the field.

The significance of this study is that it challenges school leaders to examine and define not only their approach to developing SRL, but also how this approach is communicated to all parties and how support is provided so that parents, teachers and students can fulfill the roles envisioned by the school. Further research and evaluation in this area could provide invaluable support not only to parents, teachers and students, but also to school leaders and decision makers.

References

Brown, AL, Bransford, JD, Ferrara, RA & Campione, JC 1983, 'Learning, Remembering, and Understanding', in P Mussen (ed.), *Handbook of Child Psychology: Cognitive development,* John Wiley and Sons, New York.

Commonwealth of Australia 2010, Department of Education, Employment and Workplace Relations, viewed 16 July 2010, <<u>http://www.deewr.gov.au/Schooling/Pages/overview.aspx>.</u>

EU Council 2002, Council resolution of 27 June 2002 on life-long learning, *Official Journal of the European Communities*, p.9.

Kember, D, Jamison, QW, Pomfret, M & Wong, ETT 1995, 'Learning approaches, study time and academic performance', *Higher Education*, vol. 29, no. 3, pp.329-343.

Merriam, SB 2009, *Qualitative Research: A Guide to Design and Implementation*, Jossey-Bass Publishers, San Francisco.

Miller, S, Heafner, T & Massey, D 2009, 'High-School Teachers' Attempts to Promote Self-Regulated Learning: 'I may learn from you, yet how do I do it?'', *The Urban Review*, vol. 41, no. 2, pp. 121-140.

Nolen, S 1988, 'Reasons for studying: Motivational orientations and study strategies', *Cognition and Instruction*, vol. 5, no. 4, pp. 269-287.

NSW Department of Education 2003, *Quality teaching in NSW public schools,* Sydney.

Paris, SG, Byrnes, JP & Paris, AH 2001, 'Constructing Theories, Identities, and Actions of Self-Regulated Learners', in BJ Zimmerman & DH Schunk (eds.), *Self-Regulated Learning and Academic Achievement: Theoretical Perspectives*, 2nd edn, Erlbaum, Mahwah, New Jersey, pp. 253-288.

Patton, MQ 2002, *Qualitative research & evaluation methods*, 3rd edn, Sage Publications, Thousand Oaks, California.

Renzulli, JS & Reis SM 1985, 'Scope and sequence approach to process development', *Gifted Child Today*, vol. 37, pp. 2-6.

Romeo, G 2004, 'Teaching, learning and Technology: Research, Reform, Realise the Potential', Paper presented at the *South Australia Australian Computers in Education Conference*, Adelaide, Australia.

Salter, P 2012, 'Developing self-regulated learners in secondary schools', Proceedings of Joint International Conference of the Australian Association for Research in Education (AARE) and the Asia Pacific Educational Research Association (APERA), Sydney, Australia: University of Sydney. Schunk, DH 2001, 'Social cognitive theory and self-regulated learning', in BJ Zimmerman & DH Schunk (eds.), *Self-regulated learning and academic achievement: Theoretical perspectives*, 2nd edn, Erlbaum, Mahwah, New Jersey, pp. 125-152.

Schunk, DH & Ertmer 2000, 'Self-regulation and academic learning self-efficacy enhancing interventions', in M. Boekaerts, PR Pintrich & M Zeidner (eds.), *Handbook of Self-regulation,* Academic Press, San Diego, California.

Schunk, DH & Zimmerman, BJ 1998, 'Preface', in DH Schunk & B Zimmerman (eds.), *Self-Regulated Learning: From Teaching to Self-Reflective Practice*, The Guilford Press, New York, pp. 203-224.

Stake, RE 2005, 'Qualitative case studies', in NK Denzin & YS Lincoln (eds.), *Handbook of Qualitative Research*, 3rd edn, Sage Publications, Thousand Oaks.

Tait, H & Entwistle, J 1996, 'Identifying students at risk through ineffective study strategies', *Higher Education*, vol. 31, no. 1, pp. 97-116.

Weinstein, CE 1996, 'Self-Regulation: A commentary on directions for future', *Learning and Individual Differences*, vol. 8, no. 3, pp.269-274.

Weinstein, CE 1988, 'Assessment and training of student learning strategies', in RR Schmeck (ed.), *Learning Strategies and Learning Styles*, 1st edn, Plenum Press, New York, vol. 1, pp.291-316.

Weinstein, C & Mayer, R 1986, 'The Teaching of Learning Strategies', in MC Wittrock (ed.), *Handbook of Research on Teaching*, 3rd edn, Macmillan, New York.

Weinstein, C, Ridley, DS, Dahl, T, & Weiner, S 1988, 'Helping Students Develop Strategies for Effective Learning', *Educational Leadership*, vol. 46, no.4, pp. 17-19.

Wigfield, A 1994, 'The Role of Children's Achievement Values in the Self-Regulation of Their Learning Outcomes', in DH Schunk and BJ Zimmerman (eds.), *Self Regulation of Learning and Performance - Issues and Educational Applications*, Lawrence Erlbaum Associates, New Jersey.

Wingate, U 2006, 'Doing away with 'study skills'', *Teaching in Higher Education*, vol. 11, no. 4, pp. 457-469.

Wood, E, Motz, M & Willoughby, T 1998, 'Examining Students' Retrospective Memories of Strategy Development', *Journal of Educational Psychologist*, vol. 90, no. 4, pp. 698-704.

Zimmerman, BJ 1986, 'Becoming a Self-Regulated Learner: Which Are the Key SubProcesses?', *Contemporary Educational Psychology*, vol. 11, pp. 307-313.

Zimmerman, BJ 2000, 'Self-Efficacy: An Essential Motive to Learn', *Contemporary Educational Psychology*, vol. 25, pp. 82-91.

Zimmerman, BJ 2002a, 'Achieving Academic Excellence: A Self-Regulatory Perspective', in M Ferrari (ed.), *The Pursuit of Excellence Through Education*, Lawrence Erlbaum Associates, Mahwah, New Jersey, pp.85-112.

Zimmerman, BJ 2002b, 'Becoming a self-regulated learner: An overview', *Theory into Practice*, vol. 41, no. 2, pp. 64-72.

Zimmerman, BJ 2002c, 'Achieving Self-Regulation: The Trial and Triumph of Self-Regulation', in F Pajares & T Urden (eds.), *Academic Motivation of Adolescents*, Information Age Publishing Inc., Greenwich, Connecticut, pp. 1-28.

Zimmerman, BJ & Cleary, T 2009, 'Motives to self-regulate: A social-cognitive account', in K Wentzel and A Wigfield (eds.), *Handbook on Motivation at School*, Lawrence Erlbaum Associates/Taylor & Francis, Boca Raton, Florida, pp. 247-264.

Zimmerman, BJ & Martinez-Pons, M 1986, 'Development of a Structured Interview for Assessing Students Use of Self-regulated Learning Strategies', *American Educational Research Journal*, vol. 23, pp. 614-628.

Zimmerman, BJ & Martinez-Pons, M 1988, 'Construct Validation of a strategy model of student self-regulated learner', *Journal of Educational Psychology*, vol. 80, no. 3, pp. 284-290.

Table 1

Comparison of parents' perceptions between case school and pilot school.

Parents' Perception of Whose Role it is to Develop SRL	Case School	Pilot School
Parents and teachers	56%	0%
Students, parents and teachers all have a role to play	16%	43%
Students, parents and teachers (including Primary teachers) all have a role to play	0%	17%
Parents and teachers including Primary teachers	16%	0%
Church and sporting groups, friends, other avenues	6%	0%
Secondary teachers only	1.5%	13%
Students should work it out themselves	1.5%	17%
Primary teachers only	1.5%	8%
Parents and primary teachers	1.5%	0%

Table 2

Comparison of students' perceptions between case school and pilot school.

Students' Perception of Whose Role it is to Develop SRL	Case School	Pilot School
Students, parents and teachers all have a role to play	34%	18%
Just teachers	25%	6%
Teachers and students	23%	10%
Teachers and parents	8%	15%
Just students	5%	13%
Mentioned others such as peers	3%	4%
Parents and students	2%	5%
Just Parents	0%	8%
Primarily the role of the students but teachers can help	0%	9%

Primarily the role of the students but teachers and	0%	8%
parents can help		
Primarily the role of the students but teachers can	0%	4%
help		

Table 3

Comparison of teachers	perceptions between case scho	ol and pilot school.

Teachers' Perception of Whose Role it is to Develop SRL	Case School	Pilot School
Students, parents and teachers all have a role to play	42%	100%
Parents and teachers	25%	0%
Just secondary teachers	13%	0%
Primary and secondary teachers	13%	0%
Parents and students	8%	0%

