The International JOURNAL *of* LEARNING

Intrapersonal Intelligence

Maura Sellars
Shukri Sanber

VOLUME 12, NUMBER 9

INTERNATIONAL JOURNAL OF LEARNING
<http://www.Learning-Journal.com>

First published in 2005/2006 in Melbourne, Australia by Common Ground Publishing Pty Ltd
www.CommonGroundPublishing.com.

© 2005/2006 (this paper), the author(s)
© 2005/2006 (selection and editorial matter) Common Ground

Authors are responsible for the accuracy of citations, quotations, diagrams, tables and maps.

All rights reserved. Apart from fair use for the purposes of study, research, criticism or review as permitted under the Copyright Act (Australia), no part of this work may be reproduced without written permission from the publisher. For permissions and other inquiries, please contact <cg-support@commongroundpublishing.com>.

ISSN: 1447-9494 (print), 1447-9540 (online)
Publisher Site: <http://www.Learning-Journal.com>

The INTERNATIONAL JOURNAL OF LEARNING is a peer refereed journal. Full papers submitted for publication are refereed by Associate Editors through anonymous referee processes.

Typeset in Common Ground Markup Language using CGCreator multichannel typesetting system
<http://www.CommonGroundSoftware.com>.

Intrapersonal Intelligence

Supporting Students in the English Classroom

Maura Sellars, University of Newcastle, Australia

Shukri Sanber, Australian Catholic University, Australia

Abstract: This study investigated eight and nine year old children's capabilities to develop skills in the intrapersonal intelligence domain as defined by Howard Gardner. A group of twenty-seven, seven to nine year olds were introduced to a program specifically designed to foster their self-knowledge as learners and their self-management skills in the English learning environment. The students were introduced to activities that would help them to identify their own relative strengths and limitations and use this knowledge to negotiate a learning environment that would best suit their own learning needs. This program included developing skills in goal setting and identification of personal learning strategies. It also sought to improve work habits and student on- task behaviors and encourage self-monitoring, self-evaluation and self-reflection. The results obtained evidenced a considerable improvement in the students' self- knowledge and how this impacted on their perceptions of themselves as learners. The students grew increasingly aware of their own relative strengths and used this information to negotiate their learning environment, to identify strategies that worked for them and to take increasingly more responsibility for their own learning.

Keywords: Intrapersonal Intelligence, Literacy, Self Regulation, Goal Setting, Student Reflection, Negotiating the Environment

Introduction

LANGUAGE AND LITERACY competencies are basic skills, essential to every aspect of living. In order for students to become fully integrated into society, participate appropriately in the workforce and contribute to modern society, it is vital that they are provided with opportunities within the school context in which to develop these skills, despite their wide diversity as learners. The teaching of English in primary schooling has been the focus of much research and writing. Funding for literacy projects has been abundant in the last twenty years. It has been the priority of many government bodies and researchers in an effort to ensure that students become suitably proficient in the knowledge, skills, attitudes and values that are embedded in the many forms of literacy and communication. Despite this, educators are periodically faced with situations in which individual students are not making adequate progress in literacy and language to ensure that they will be fully equipped to take their place in society, the workforce or the information era in which they will be required to participate.

This study investigated one such group of students. However, rather than being designed as project specifically focussing on the development of skills and knowledge in English, the purpose of this study was to provide evidence that a program of skills and strategies designed to nurture and develop intrapersonal intelligence as defined by Gardner (1983,1993)

in individual students would impact positively on their academic performance in the English classroom. Specifically, the ten month research project sought to provide evidence that the students would increasingly demonstrate more self-directed learning, have improved self- monitoring skills, and have developed deeper self – awareness of themselves as learners as a result of their improved intrapersonal knowledge. This, in turn, would result in more successful learning and achievement in the key learning area of English, without which, access to many other areas of knowledge and learning would be severely hampered. The development of strong, accurate intrapersonal intelligence was seen therefore, as integral to these students' success in English as more traditional teaching and learning strategies had not appeared to meet the literacy needs of these students in the past. Strategies acknowledged as influential in the success of learning outcomes were planned as part of the intervention to support the students.

Review of Literature

Of the intelligences identified by Gardner (linguistic, logical/mathematical, spatial, musical, bodily kinaesthetic, naturalistic, intrapersonal, interpersonal and possibly existential) it is his thoughts on the concept and role of the intrapersonal intelligence that are of particular interest. There is evidence of the growing importance that Gardner places on intrapersonal intelligence. Ten years after the original publication,

in the Forward to the second edition of 'Frames of Mind' (1993), Gardner revises only one aspect of one intelligence, the intrapersonal. He acknowledges the importance of personal choices in the educational process, in particular the role of 'human emotions, personality and cognition' (1999, p.51). His most interesting assertion, however, concerns cognition and emotion. He states that, although there is a great deal of interest in the working of the mind in academic communities, there has been little investigation into the relationship between 'the understanding of one's own mind.(and) personal responsibility for one's own education'. It appears that amongst the many 'forces' that will impact on education, there is one over which individuals may have some control, the capacity to develop individual intrapersonal intelligence and to use this knowledge of self to interpret, moderate and construct meaning from life's experiences. The challenge for educators is clear, but as Gardner indicates, it is an area that has not hitherto attracted a great deal of interest. This poses additional problems for educators. There is little relevant literature available. Gardner himself does not provide any indications of the types of educational experiences that could have a positive impact on the development of students' intrapersonal intelligence in formal education contexts. His theory of Multiple Intelligences (1983, 1993) simply includes the rejection of intelligence(s) as a fixed entity and endorses the perspective that intelligence is dynamic, capable of being enhanced in various aspects in response to appropriate experiences and learning environments.

The increased emphasis on intrapersonal intelligence as essential for all individuals is reflected in the work of other theorists, (Schraw, in Hartman, 2001, Dewar, 1997, Livingston, 1997, Shepard, Fasko & Osborne, 1999). They agree, that irrespective of the other strengths students have, the lack of focus on students developing an accurate understanding of themselves as learners, highlights what may have been, in traditional education, a serious weakness. Gardner (2000) provides perhaps the strongest indicator for educators seeking a rationale for new pedagogy with which to prepare students to take their place in a Third Millennium society- that is to teach students to know themselves well and to have an accurate, sophisticated knowledge of self, giving new emphasis in the ancient wisdom of Socrates-know thyself. Enhancing strong intrapersonal intelligence may be the means by which individual students gain the confidence and skills to be successful learners both during and after the years of formal education. However, the lack of practical information, details of how data was gathered, recorded and analysed in the available literature does little to support educators' attempts to provide learning experi-

ences which focus on strengthening the intrapersonal intelligence of their students.

This becomes particularly problematic for educators attempting to provide environments to support the learning of students who are experiencing difficulties in a basic academic skill such as literacy, as were the students involved in this study. Learning difficulties in this context is understood in the terms defined by the Australian Government Department of Education, Science and Training (undated). This includes, but is not limited to, students with Attention Deficient Disorder, Attention Deficit Hyperactivity Disorder, dyslexia, language and communication difficulties and learning disabilities. It excludes students with physical, intellectual or sensory impairment and those whose difficulties are the result of social, environmental or cultural difficulties. Some of these conditions that impact negatively on students' literacy development are easily identified and assisted in a variety of early intervention programs. Others are not so easily identified and can produce a cycle of increasingly disinterested, disengaged and unmotivated students. It appears that 'If students with literacy problems are not identified and supported until Year 3 or later they may have experienced significant and prolonged failure and would be unlikely to bridge the academic gap between them and their peers' (Robinson, in Foreman, Ed, 2005, p.262). Robinson (in Foreman, 2005) discusses the negative impact of lack of control on students' perceptions of themselves as learners. He suggests students need to establish some degree of learner control and perceive some possibility of success. Otherwise, he proposes, it is impossible to help these 'at risk' students to overcome their disadvantages. Therefore, strategies to develop intrapersonal intelligence needed to include, from the onset, some task over which the students had total control. Setting own learning goals was considered to be an appropriate option.

Goal Setting

Goal setting is common practice in a diversity of cultures, contexts and circumstances. It has many advocates in the educational arena also. Lepani (1995) believes that students' capacity to set goals provides them with the opportunity to access and develop skills in four principles, lifelong learning, learning to learn, customizing global learning and directing one's own learning. Gardner (1999, p.113) also recognizes their importance. He states, 'goals must come first and they must be kept in mind.' Greenwald (2000) finds it important to highlight the individual nature of thinking and learning, for each student to establish knowledge of their own individual learning preferences and for them to decide what they wanted and needed to know to be able to take

each step of the way. He found that goal-setting was one effective method of doing this. Kaplan & Maehr (1999) discovered that student achievement goals, those which aimed at improving individual progress in learning, were more successful at promoting well-being and academic success than 'ego goals'. They identified 'ego goals' as those that were constructed and pursued in order to excel, with the purpose of beating or 'besting' others. Oppenheimer (2001) agreed that research studies had assisted in identifying that the characteristics of the most successful goals were the same as those for achievement goals. However, these reports had some serious limitations in the context of this study. None focussed on students with literacy difficulties, nor did any focus on students as young as those investigated in this project. Consequently, it was anticipated that some issues would arise that had not been examined in these contexts. It was likely that students with poor literacy skills and confidence may have problems determining, articulating and managing appropriate goals. There was also the question of defining achievement goals and 'ego' goals for the students in question.

Educationalists from different areas such as Bloom and Krathwohl (1964), and Ellison (1992) advocated students' writing specific learning objectives. However, in the context of students with learning difficulties, the task of writing learning objectives may be as problematic as refining an ideal to become a meaningful, realistic learning goal. To be a realistic strategy for this project, the goal setting process needed to be clearly defined as a series of distinct steps. This type of goal setting is evidenced in the SMART goal setting process utilized by McGrath & Noble (2003), as part of their program designed to develop resilience in students. Bandura (undated) believes that appropriate, challenging goals sustain and increase student motivation. He asserts that motivation based on goal setting involves a comparative cognitive process, which then determines that self-satisfaction is conditional on achieving the set goal. It is this self-satisfaction that drives people to persist in their efforts and moderate their behaviors in order to achieve their goals. Much of the value of goal setting in an educational context lies in the fact that this intrinsic reward of self-satisfaction is frequently of much more value and importance than any extrinsic reward or punishment. In addition, Walker and Debus (2002) identified learner goals as one of three mediators of learning outcomes. This wide-ranging support for student goal setting led to its inclusion as one of the strategies in this program, despite some reservations regarding the level of motivation that students could bring to the process, given that their previous educational experiences in this area of learning had brought limited success.

The goal setting process alone, however, was not considered to be sufficient for the purposes of this study. In order to facilitate the students' awareness of themselves as learners and the use of their relative strengths to support their learning in areas of relative limitation, they needed to develop an awareness of which strategies were productive for each of them individually and be assisted to customize these strategies to accommodate the inclusion and use of individual areas of relative strength. Consequently, some strategies were planned in the intervention program to support this activity and students were interviewed about the strategies they had found to be the most useful for each of them at regular intervals during the research period. The pattern of nominated strategies was recorded for each participant and some interesting trends were identified on later analysis. Students were also monitored for progress in their ability to articulate their individual goal achieving strategies.

Use of Reflective Journals

Compilation of reflective journals has proven to be particularly effective in the promotion of reflective practices in a wide variety of learning environments, from adults to kindergarten students (Garmon, 2001, Glasgow, 1999, Hannon, 1999, Hine, 2000, Morningstar, 1999, Medley, 1999, Hand & Keys, 1999, Glazer, 1999, Manning, 1999, Pressick-Kilborn and Weiss, 2001). Patterson, Crooks and Lunyk-Child (2002) also regard self-reflection as a very important component of self-directed learning, asserting that it assists students to identify their own strengths and relative weaknesses. They identify three levels of reflection. The first level is the 'content reflection' that identifies students in the process of doing just that- describing what's happening in concrete, non-personal terms. Reflection at the next level seeks to do more than describe. At the second level relationships between new knowledge and previously learned knowledge are established, then used in coping with new learning situations. The third level of reflection is described as the 'premise' reflection and relates closely to Lepani's (1995) 'transformational' learning and Kincheloe's (in Pinar, 1998) 'creation of integrated knowledge'. The students at this stage are capable of internalising knowledge, a phase which the authors define as '...transformation of meaning in which knowledge is made one's own' (2002, p.6).

Gardner (1999) and Lepani (1995) agree that this stage is extremely significant as it empowers students to devise strategies to cope with new demands and opportunities and to overcome limitations. It appeared that reflective journaling would be a productive strategy. It was planned as part of the student

intervention and was evaluated and rated using criteria loosely based on these different reflective levels, despite the considerable limitations that were identified. Many constraints could result from the students' poor progress in literacy, age, developmental stage and other characteristics of their learning. Additionally, students were not likely to demonstrate the same level of reflection across a variety of literacy tasks and issues could easily arise concerning the level of reflection that could be interpreted from students' journal entries considering their lack of experience of this type of formal reflection and their levels of expertise in expressing their thoughts and emotions with any accuracy.

Context

The intervention was implemented to support the group of twenty-seven students, aged eight and nine years old, who were assessed as low achievers in literacy and consequently viewed as students 'at risk' of failure in the classroom. The setting was a large Catholic systemic school serving a rural community which was experiencing a depressed economy. Although not within the scope of this study, it would be unrealistic to ignore the impact of social and economic factors on the students' attitudes, skills and strategies related to overcoming difficulties and being resilient in the face of ongoing problems. The students' major learning difficulties were identified in the results of a range of diagnostic tests, running records, teacher observations and assessment of work samples. In addition to these the two colleague teachers noted that the students exhibited poor skills in listening, getting organized and remaining on task. The findings of specialist educational support staff, and other specialists validated these teacher observations. The intervention was designed for whole class implementation, although data was collected from the 27 students in the target group only.

Amongst the 27 students across the two classes, the following considerations were considered to be significant. One child was medicated for Attention Deficit Disorder, six students were receiving regular counselling from the school psychologist, two students had receptive and expressive language scores low enough to qualify them for additional support and four students wore prescription glasses for recently diagnosed eye conditions that were not able to be identified by basic eye screening procedures. Thirteen of the students were observed by teachers and support staff as having formulated an image of themselves as unsuccessful learners that was reflected in their lack of involvement, interest and commitment in English. They appeared to have concluded that, as they were not as successful as others in English, it was frequently pointless to continue try-

ing. In this group, the teacher/researcher and colleague teachers had observed some students as displaying learned helplessness—they would not attempt a task without one- to- one adult support.

This helplessness was manifested by the students in a variety of ways which included not attempting a writing task without being told exactly what to write, sitting without the necessary equipment, i.e. pencils, books, reader, etcetera for extended periods of time and simply refusing to attempt or complete any given task. Previous teachers had recorded similar observations of these students. Another distinguishing characteristic observed and recorded by teachers prior to the commencement of the study was that the majority of the 27 students who comprised the study group lacked organizational skills. Some students in each group regularly arrived after the start of the lesson, regularly mislaid their workbooks, even though these books were the ones that should not have left the classroom, and generally found starting any task difficult. Frequently, the impact of this initial lack of purposeful activity set the tone for the entire lesson. These students frequently did not successfully complete any learning activity during the entire lesson.

Intervention Program

The initial step was to identify students' strengths and limitations, as perceived by the students. In order to accomplish this, a Multiple Intelligences Profile (McGrath & Noble, 2003) was compiled for each student participant. In order to accomplish this task, measures were put in place to ensure that this activity was non-threatening, manageable, non-competitive and accurate. A discussion of differences was initiated, during which the students were asked to identify different situations in which the individuals would behave in a variety of ways. The students were encouraged to acknowledge that no one was good at everything. This was followed by the individual completion of the Multiple Intelligences profile in response to the questions designed for the task (McGrath and Noble, 2003). These profiles provided the initial data from which the specific intervention strategies were developed.

The intervention program was then planned using the data accessed from the Multiple Intelligences profiles and utilised the Bloom's /Gardner's matrix to differentiate learning in both content/contexts and cognitive processes. This planning tool, which combines the two typologies, also allows for regular activities to be planned and implemented in the intrapersonal domain. This made it easier for teachers to plan frequent opportunities for students to acquire skills in reflective practices, evaluation and assessment of their own learning and thinking. Many

activities served to prepare the students for as the entries they were later to record in their reflective journals.

The students were then introduced to the SMART goal contract proforma (McGrath & Noble, 2003). This version of a well known format for goal setting and management differed only from the traditional in one respect: the M of the acronym was used to indicate meaningful instead of measurable, an important consideration for the participants as they were required to set and manage their own goals. Using the acronym, (Specific, Meaningful, Achievable, Resourced and Time framed), the students were assisted to develop their own goals in English. Students were required to set goals in English that they had never before achieved. The successful completion of one goal was to be followed by the setting of another task in English that had hitherto never been achieved. The SMART goal contract (McGrath & Noble, 2003) provided the format for the students' goal-setting activity. It provided students with detailed guidelines and established a step- by -step procedure for setting goals, which prompted students to consider the details.

Students were required to state why they had chosen their goal and the strategies that they may be able to use to achieve the goal. Despite this detail, the contract remained flexible and was able to be adjusted or reassessed. This afforded the students an opportunity to be involved in the process of determining their own learning priorities and encouraged students to be reflective about their own learning needs in English. By identifying specific goals and establishing ways in which these goals can be achieved, it was hoped that students would become more aware of their individuality as learners and of the strategies that supported their individual learning processes.

The achievement of one goal was followed by the setting of another, until the end of the study. It was hoped that by the conclusion of the study each student would have achieved several goals that he/she had not previously been able to reach. The intervention program was then introduced to the students and they were encouraged to select strategies that they may like to adopt to support their efforts in achieving their goals. They were also encouraged to select strategies and customise them to support their efforts to achieve a nominated goal or to more specifically use an area of relative strength, as nominated on their Multiple Intelligence profiles, to assist them to achieve their goals. Strategies from the intervention program could be developed in any manner in which the student wished in order to best support the achievement of the SMART goals (McGrath & Noble, 2003).

The students were also involved in listening and talking activities that involved them systematically listing the conditions and contexts in which the each learnt best in English. They were then encouraged to discuss how these circumstances and settings could best be provided in the English classroom and persuaded to negotiate their learning environment during English lessons so that learning was maximised. Opportunities for reflection and evaluation were also planned into the teaching and learning programs prepared for the student participants. In addition to the informal discussions and evaluative procedures that was generated by peer and teacher student discussions of suitable goals, adaptation of strategies to suit the skills of others etcetera, questions designed to prompt student reflection and evaluation of their own skills, knowledge and attitudes in relation to revised and new learning were displayed prominently around the rooms. These were designed to support students' comments that were recorded in their reflective journals.

Data Collection

As indicated previously, the students Multiple Intelligences Profiles (McGrath & Noble, 2003) were used to develop an assets analysis from which to design activities for the intervention program. They also provided the pre and post intervention information regarding any development in the students' intrapersonal intelligence as the result of a paired t -test. The students' goals were recorded and displayed as a concrete, visual focus in the classroom. This not only provided a record of each student's goals, both in type and number, but also indicated which strategies students used to achieve their goals. Three individual interviews were conducted by the teacher researcher at intervals during the ten month study. These interviews provided confirmation of the data regarding individual students' personal strategies for achieving goals and explanations of personal preferences in relation to optimum learning environments for each as expressed by the students themselves. The entries in the reflective journal were analysed and graphed for each student using a rating scale that was developed to determine the quality of the journal entries and the level of reflection that was evidenced in each entry. Students may be just offering one or two word answers in response to the prompts, or taking the opportunity to express their own ideas and feelings and articulate their evaluations in terms of their own learning and themselves as learners.

The colleague teachers' formative assessments of student progress in relation to the NSW Board of Studies K-6 English syllabus (1997) outcomes and indicators also provided data relating to the effective-

ness of the students' strategies and the impact these had on the number of completed tasks, the quality of the work students were engaging in and the rate of improvement in the students' skills and strategies in English. The latter provided valuable insights into the progress of the thirteen students who had originally exhibited characteristics of helplessness in this particular learning environment.

The final data source was accessed to provide triangulation of the results. The Teacher Interview Form required the colleague teachers to rate the students on previously agreed criteria which reflected the degree of competence that the students had individually developed in comparison to the profile that was developed prior to the commencement of the intervention. The colleague teachers summarised their observational, anecdotal and conferencing records in addition to their formative assessment records and reported on each student in relation to their progress in the following areas; improved skills in defining new goals in English, articulating own strategies for goal achievement, improved skills at staying on task, persevering when the task became difficult and completing work tasks in English. They also provided evidence of students' increased awareness of their own relative strengths and limitations in the English learning environment.

The Findings

The students' self - knowledge as learners did improve. They all set, managed and achieved a number of goals in English that they had never previously achieved. They participated more effectively in the English classroom and their perceptions of their relative strengths in the domain of language and literacy shifted positively. The teachers and the teacher/researcher evidenced this in the Multiple Intelligences profiles that were compiled pre and post intervention, the teachers' assessment records of individual students' English achievement and the anecdotal records that were compiled. The evidence that came from the students themselves was quite decisive. At the conclusion of the project, the procedure for developing the Multiple Intelligences profile (McGrath & Noble, 2003) that was used at the commencement of the project was repeated. Graph 1 indicates the raw scores of the students' positive responses to the four questions relating to the intrapersonal intelligence domain on the Multiple Intelligences Questionnaire (McGrath & Noble, 2003). The results of the students' responses for the intrapersonal intelligence were then compared, using a more traditional method of interpreting data, a paired sample t-test (Table 1).

The difference in the mean scores between the February responses to the questions dealing with intrapersonal intelligence and those given to the same questions in November differed significantly. The November mean score was significantly higher than the February mean score and $p=.000$, indicating that the probability for error in these results was extremely low.

The responses from the four questions relating to the Verbal/Linguistic domain were also graphed for February and November (Graph 2). These illustrate a significant difference in the students' perceptions of their relative strengths and limitations in this intelligence domain. Each of the students had indicated an increase in their raw scores at the conclusion of the intervention, indicating that they felt more positive about their skills and strategies in English. The paired sample t-test of student responses relating to the verbal /linguistic domain (Table 2) confirmed that students' perceptions of their skills and competencies in this domain were significantly different. The November mean score was significantly higher in November and $p=.000$, indicating again that the probability for error was extremely low. A strong correlation between the students' increase in self knowledge as learners and their perceptions of themselves as learners in English is indicative of the positive impact that the intervention strategies had on the students attempts to overcome their difficulties in the English learning environment.

The teachers' assessment records of the students' academic progress in English also provided evidence to support this statement. They reflected similar growth in knowledge of self. At the end of the study all the students appeared to have developed a better understanding of their relative strengths and limitations as defined by Gardner's intrapersonal intelligence and had improved their work habits, on task times and completed more work tasks in English than previously. The students had become increasingly active and successful in their own learning in English through their goal setting, reflective activities and skills in negotiating suitable learning environments as part of their learning in the English classroom. There was evidence that twelve of the students who were observed to have difficulties getting started, organising their equipment and ideas and completing tasks had made considerable improvement. The remaining student identified as a member of that cohort still required a higher level of teacher assistance than the others, but had made progress in all areas studied and was less reluctant to attempt suggestions made by the teacher in relation to task completion.

Graph 1: Students' Responses Relating to Intrapersonal Intelligence Domain Feb /Nov Graph 1 illustrates the students' responses to the intrapersonal intelligence domain in the Multiple Intelligences profiles compiled in February and November.

Table 1: Comparison of Student Responses Intrapersonal Intelligence MI Profiles Table 1 illustrates the increase in students' intrapersonal intelligence using the responses from the Multiple Intelligences profile (McGrath & Noble, 2003).

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	FEB - NOV	-2.0385	1.1482	.2252	-2.5022	-1.5747	-9.052	25	.000

Graph 2: Student Responses Relating to Verbal/Linguistic Intelligence Domain

The results of the Multiple Intelligences profiles (McGrath & Noble, 2003), at the conclusion of the study varied considerably from those originally gained at the commencement of the intervention. At the conclusion, all the students nominated increased strength in intrapersonal intelligence, twenty-two of these considered intrapersonal intelligence a relative strength. Every student had represented the verbal/linguistic intelligence domain as part of their profile and recorded increased strength in this area. Three students nominated this domain as a relative strength. The results of this analysis differed considerably from the results obtained at the commencement of the study when a number of students recorded no strengths in intrapersonal intelligence and twenty-one students recorded no strengths at all in the verbal/linguistic intelligence domain.

Discussion of the Findings

The original results, compiled ten months previously, indicated that only six of the twenty-seven students

perceived themselves to have any strength at all in the area of linguistic/verbal intelligence and no student nominated it as an area of relative strength. Eighteen of the twenty-seven students nominated areas of greatest strength that were not directly related to traditional classroom activities or academic areas, that is, the areas of language and logic. Intrapersonal intelligence was not considered a traditional area of strength. None of the students nominated intrapersonal intelligence as a significant strength, although only six of the students recorded no intrapersonal strength at all on their profile. These records provided the evidence that the students did not regard themselves as particularly competent or successful learners in the English area and that none felt they had a relative strength in the target intelligence, intrapersonal intelligence. It is likely that these perceptions of themselves as learners and as young students unsure of their own relative strengths and limitations seriously undermined the students' confidence, especially when attempting the next step in the intervention, the unfamiliar task of SMART goal-setting.

(McGrath & Noble, 2003). The students found the task difficult.

Initially, none of the students was able to complete the SMART contract without assistance. Three students were confident to complete one section at a time after receiving reassurance and further explanation of the requirements. The remainder was not able to attempt the task without one-to-one support from an adult. Ten students were identified as having extreme difficulty and required one-to-one assistance in order to complete the SMART goal contract (McGrath & Noble, 2003). There were several areas of difficulty for this group of students. They found contract difficult to read. When it was read aloud to these students, they still found it difficult to determine what exactly the task required. When the task was explained and some understanding reached on an individual basis, making a decision about the goal itself became the problem. Nine of these ten students found decision-making about a learning goal in a classroom situation very challenging. Only one of the students was happy to decide on a goal for himself.

It was observed that these other nine students would have been more comfortable if the teacher had taken responsibility for determining the goals on their behalf. However, this would have achieved little considering the teacher researcher's intention that students been given opportunities to experience a sense of being in control of at least some aspect of their learning. After further interaction on a one-to-one basis, two more of these students were able to set a goal. The remaining seven established their goals after further, substantial discussion. These discussions took place as individual teacher/student

meetings over a period of days. Developing specific goals also proved to be a challenge, even for the remaining seventeen who were confident to read and set goals for themselves. Having been directed to set a goal that they would like to achieve in English, there were many instant responses, but these were non-specific in nature. Consequently, the meaning of specificity needed to be explored and then applied to each of the ideas that the students had offered regarding their own goals.

The role of decision-making in the formal education environment was unfamiliar to the majority of students and the resultant insecurity was further complicated by the need for personal, individual responses. There were no clear right or wrong answers. It was decided after the initial goal-setting experience that students needed time to discuss their goals with their peers and support each other with suggestions, both for the development of specific goals and for strategies, to ensure the best possible chance of achieving the goals. Students were also encouraged to discuss their strategies with their peers and support each other in the creation of suitable strategies that accounted for both their individual relative strengths and the learning goals they each had set for themselves. Despite this cautious start, many students had two goals in progress simultaneously at the conclusion of the project, one long-term goal and a short-term goal. Graph 1 illustrates the ratings that the teachers awarded each student for their goal setting skills at the conclusion of the study. The teachers' summaries of their formative assessment records, anecdotal records and individual student records of the goals set and achieved during the study determined these ratings.

Graph 1: Teachers' Observations of Student Skills in Setting Goals in English at the Conclusion of the Study
Graph 1 shows the ratings awarded to the students for goal setting at the conclusion of the study by the colleague teachers.

The strategies themselves, supported by some basic suggestions in the implementation program, were developed as a vast diversity of activities not usually associated with the teaching of English skills. Students bounced balls and repeated their spellings, included peer mentors to evaluate progress in handwriting, categorized words into vowels and consonants when attempting decoding, used mathematical and spatial knowledge to distinguish one similar word from another, organized their time in predetermined sessions. These are examples of the many strategies that students independently articulated during the first and second interviews. The students had been able to participate in the challenge and were achieving their goals with considerable enthusiasm and creativity. By the third and final interview, the students were not only articulating their strategies more concisely and clearly but the strategies that were expressed provided evidence of a change in the nature of the students' thinking about achieving learning goals effectively. The strategies were almost exclusively more 'generic' in nature. They were more general and more widely applicable to a range of English learning goals and mirrored the strategies that are employed by goal setters in diverse contexts. They included persevering despite having difficulties,

planning time, being organized and being determined.

The opportunity to implement unusual strategies and set own time frames in the conventional classroom depended on the students' skills in negotiating the learning environment with the colleague teachers and peers. Students were encouraged to take increasing responsibility for their learning in several ways. Opportunities for the students to generate learning resources and implement them to support their learning were planned into the teaching and learning programs. Successes were openly discussed, celebrated and recorded. Individual differences in the students' perceptions of their optimal learning environment were accommodated. Students were encouraged to use individual timers, participate in a variety of co-operative group roles, rearrange the physical environment if necessary and take the initiative when conditions were not suitable for their learning.

A snapshot of the classrooms revealed the diversity of students' learning preferences and their requirements. Students could be observed engaged in English tasks over which they had a degree of control, for example, creating customized questions for discussion and comprehension tasks, using a variety of resources including cubes on which starters

for questions from each level of Revised Bloom's Taxonomy (Anderson & Krathwohl, 2000). The physical learning environment often reflected various needs also. It was notable that students could concentrate on completing a task whilst wearing headphones to block out unwanted noise, be seated at desks alone and at a distance from others or at desks grouped together to facilitate discussion, interaction and joint construction or solving of tasks, depending on their learning requirements at that time.

The reflective journaling was also a considerable challenge for the students at the commencement of the study. One student daily placed his reflective journal in the rubbish bin until he became more secure about the task and developed a better understanding of the self-reflective process. Originally, many students responded to the classroom lists and displayed prompts when formulating comments in their reflective journals, but increasingly, as the task became more familiar and students approached it more confidently, responses reflected original terms of reference and increasing insights into what students perceived to be relatively easy or difficult for them individually. An analysis of all the entries in the students' journals at the conclusion of the study provided evidence of increasing self-awareness. All the students achieved ratings in later entries that were higher than those in the initial entry. No student maintained consistently high ratings on all entries throughout the study; instead, the ratings awarded

to all the students' entries displayed patterns of peaks and troughs when individually graphed.

In addition to these results, teacher observations, formative and summative assessments and anecdotal records provided evidence relating to students' work skills. These were focused specifically on students' capacities to improve the length of time spent on task during English activities, persevere when tasks became difficult and complete more English tasks. In the absence of more formal measures such as standardized testing to establish reading and spelling ages, which had been deliberately avoided for the duration of this study, the summaries that the teachers compiled from their assessment records were important indicators of the impact of increased intrapersonal intelligence on the students' performance in the content area. Already, considerable evidence to support the students' improved skills in English had been acquired from the students' own perception of themselves in their Multiple Intelligences profiles (McGrath & Noble, 2003) and their comments in their reflective journals. Graph 2 illustrates the results of the teachers' summaries and supports the students' own perceptions of their achievements in the English classroom. It can be seen that all students had improved, many of them substantially. Anecdotal records compiled by the teachers and casual teachers recorded the emergence, in these students, of skills associated with self-regulated learning.

Graph 2: Teachers' Observations of Student Work Skills at the Conclusion of the Study Graph 2 illustrates the ratings the colleague teachers awarded to the students for work skills at the conclusion of the project.

Conclusion

This project focused on highlighting the strengths that students bring to the formal learning context, even if they are not those traditionally associated with classroom interaction. The development of increased intrapersonal intelligence as defined by Gardner allowed these students to reassess a learning environment in which they had previously regarded themselves as unsuccessful. A number of the students had been identified by various professional agencies outside the school as suffering from a range of limitations which would, quite possibly, impact negatively on their capacity to interact successfully with peers and teachers in the learning environment without some form of intervention that was designed to compensate somewhat for each of their limitations. It is interesting that this study provided some evidence that students with learning disadvantages still have the capacity to investigate, determine and evaluate how they each learn best and take action, using this information, to improve their skills in English.

The impact this intervention and the resultant increase in intrapersonal intelligence had on the content learning (English) and the students work skills was considerable. The students themselves guided the provision of circumstances and contexts in which a diversity of students with different learning strengths and needs could become successful. This proved to be not only an educational success but one which empowered disenfranchised students, allowed them some control over their own learning and motivated them to acquire strategies and skills that were applicable to a wide diversity of learning contexts. However, the skills and strategies associated with goal refining and goal setting, students taking more control of their learning, building student awareness of their own learning and reporting in reflective journals

was not without problems. For interventions of this type to be effective, teachers must have considerable skills in gaining learner confidence, scaffolding learning without becoming prescriptive and patiently allowing students to become increasingly confident and competent in the determination and management of students' own learning goals. It is not necessarily a speedy process for all students and requires much teacher persistence and perseverance.

One of the unplanned, unmeasured, but eminently rewarding results of this study was the tolerance and acceptance these students developed regarding peer differences and their own learning preferences. It could be that in order to provide successful, cooperative teaching and learning communities in the Third Millennium, the development of self-knowledge should be acknowledged as the vital attribute Gardner (2000) considers it to be. The results of this study in the context of the teaching and learning of English in a regular classroom environment may provide the impetus needed to instigate larger, more inclusive studies of a similar nature. These would focus on learners as individuals with a diversity of relative strengths and limitations of which they have sound accurate knowledge. Studies such as these could investigate the possibilities and consequences of allowing all students more substantial control over their own learning, focus on how learning environments could be negotiated for student benefit without compromising the school structures and disadvantaging those who require most support for successful learning. It may be of significant benefit to develop studies that promote the use of students' relative strengths, irrespective of their limitations, to provide opportunities for success in relatively weaker areas and encourage students to know about a diversity of learning processes, most especially their own.

References

- Anderson, L.W. and Krathwohl, D. (2000). *Taxonomy of teaching and learning: a revision of Bloom's Taxonomy of educational objectives*. New York: Longman.
- Bandura, A. (undated). Self-efficacy defined. [Online] Available: <http://www.emory.edu/EDUCATION/mfp/BanEncy.html> [Visited July 2002]
- Bloom, B. and Krathwohl, D. (1964). *Taxonomy of educational objectives: the classification of educational goals*. London: Longman.
- Dewar, T. (1997). *Learning to learn*. [Online] Available: <http://www.telusplanet.net/public/tddewar/rru/ltol.html> [Visited August 2002]
- Ellison, L. (1992) 'Using multiple intelligences to set goals'. *Educational Leadership*, vol. 50, no.2.
- Ellison, L. (2001). *The personal intelligences: Promoting social and emotional learning*. New York, Corwin Press.
- Gardner, H. (1983). *Frames of mind: the theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1993). *Frames of mind. Tenth Anniversary Edition*. New York: Basic Books.
- Gardner, H. (1999). *The disciplined mind. What all students should understand*. New York: Simon and Shuster.
- Gardner, H. (2000). 'Howard Gardner on making the most of young minds'. *The Education Digest*, vol. 65, no.2, p.4-6.
- Garmon, M.A. (2001). 'The benefits of dialogue journals: what prospective teachers say'. *Teacher Education Quarterly*, vol. 28, no.4, p.37.
- Glasgow, J.N. (1999). 'Recognizing students multiple intelligences in cross age buddy journals'. *English Journal*, vol 1, p. 88-96.

- Glazer, S.M. (1999). 'Maintaining learning'. *Teaching Pre K-8*, vol. 29, no.8, p.102-105.
- Greenwald, N.L. (2000). 'Learning from problems'. *The Science Teacher*, p.28-32.
- Hand, B. and Keys, C.W. (1999). 'Inquiry investigation'. *The Science Teacher*, vol.66, no.4, p.27-29.
- Hannon, J. (1999). 'Talking back: kindergarten dialogue journals'. *The Reading Teacher*, vol. 53, no.3, p.200-203.
- Hine, A. (2000). 'Mirroring effective education through mentoring, metacognition and self-reflection'. Paper presented at the Australian Association for Research in Education Conference.
- Kaplan, A. and Maehr, M.L. (1999). 'Enhancing the motivation of African American students: an achievement goal theory perspective'. *The Journal of Negro Education*, vol.68, no. 1, p. 23-41.
- Kincheloe, J.L. in Pinar, W.F. (ed) (1998). 'Curriculum: towards new identities'. New York: Garland Publishing.
- Lepani, B. (1995). 'Implications for change in a learning culture: meeting the challenges of the knowledge economy'. Paper presented at the International Confederations of Principals Second World Convention in Sydney.
- Livingston, J.A. (1997). 'Metacognition: an Overview'. Unpublished manuscript, State University of New York at Buffalo.
- Manning, M. (2001). 'Journals and diaries'. *Teaching Pre K-8*, vol.31, no. 5, p.83-84.
- McGrath, H. and Noble, T. (2003) 'Bounce back! Classroom resiliency program'. Sydney: Pearson Education.
- Medley, R.M. (1999). 'Channel effects: two methods of letter writing in the classroom'. *Journal of Adolescent and Adult Literacy*, vol.42, no.8, p.668-675
- Morningstar, J.W. (1999). 'Home response journals: parents as informed contributors in the understanding of their child's literacy development'. *The Reading Teacher*, vol.52, no.7, p.690-697.
- Oppenheimer, R.J. (2001). 'Increasing student motivation and facilitating learning'. *College Teaching*, vol. 49. no. 3. p. 96.
- Patterson, C.; Crooks, D and Lunyk-Child, O. (2002). 'A new perspective on competencies for self directed learning'. *Journal of Nursing Education*, vol.41, no.1, p.25.
- Pinar, W.F. (1998). 'Curriculum: towards new identities'. New York: Garland Publishing, Inc.
- Pressick-Kilborn, K. and Weiss, L. (2001). 'A mirror has many faces: negotiating a classroom community of learners through reflection'. A paper presented at the annual conference of the Australian Association for Research in Education, Fremantle, Western Australia.
- Schraw, G. in Hartman, H.J. (eds) (2001). 'Promoting general metacognitive awareness'. Kluwer Academic Publishers, Netherlands.
- Shepard, R.; Fasko Jr, D. and Osborne, F.H. (1999). 'Intrapersonal intelligence: affective factors in thinking'. *Education*, vol. 119, no.4, p.633-642.
- Walker, R. and Debus, R. (2002) 'Educational Psychology: Advances in learning, cognition and motivation'. *Change: Transformations in Education*, Volume 5.1 May.

About the Authors

Ms Maura Sellars

Have over 25 years teaching experience in Primary school in London and Australia. Presently a PhD candidate and university lecturer. Interested in the affective component of education.

Shukri Sanber

Shukri Sanber, Ph.D. is a senior lecturer at ACU, Strathfield. He teaches in the areas of Educational Assessment and Research Methods. His current research interest are in assessment, program evaluation and action research.

THE INTERNATIONAL JOURNAL OF LEARNING

EDITORS

Mary Kalantzis, RMIT University, Australia.

Bill Cope, Common Ground, Australia.

EDITORIAL ADVISORY BOARD

Michael Apple, University of Wisconsin-Madison, USA.

David Barton, Lancaster University, UK.

James Paul Gee, University of Wisconsin-Madison, USA.

Brian Street, King's College, University of London, UK.

Kris Gutierrez, University of California, Los Angeles, USA.

Scott Poynting, University of Western Sydney, Australia.

Gunther Kress, Institute of Education, University of London.

Ruth Finnegan, Open University, UK.

Roz Ivanic, Lancaster University, UK.

Colin Lankshear, James Cook University, Australia.

Michele Knobel, Montclair State University, New Jersey, USA.

Nicola Yelland, RMIT University, Australia.

Sarah Michaels, Clark University, Massachusetts, USA.

Richard Sohmer, Clark University, Massachusetts, USA.

Paul James, RMIT University, Melbourne, Australia.

Michel Singh, University of Western Sydney, Australia.

Peter Kell, University of Wollongong, Australia.

Gella Varnava-Skoura, National and Kapodistrian University of Athens, Greece.

Andreas Kazamias, University of Wisconsin, Madison, USA

Ambigapathy Pandian, Universiti Sains Malaysia, Penang, Malaysia.

Giorgos Tsiakalos, Aristotle University of Thessaloniki, Greece.

Carey Jewitt, Institute of Education, University of London, UK.

Denise Newfield, University of Witwatersrand, South Africa.

Pippa Stein, University of Witwatersrand, South Africa.

Zhou Zuoyu, School of Education, Beijing Normal University, China.

Wang Yingjie, School of Education, Beijing Normal University, China.

Juana M. Sancho Gil, University of Barcelona, Spain.

Manuela du Bois-Reymond, Universiteit Leiden, Netherlands.

Mario Bello, University of Science, Technology and Environment, Cuba.

Miguel A. Pereyra, University of Granada, Spain.

José-Luis Ortega, University of Granada, Spain.

Daniel Madrid Fernandez, University of Granada, Spain.

Francisco Fernandez Palomares, University of Granada, Spain.

ASSOCIATE EDITORS, 2005

Visit: <http://www.Learning-Journal.com>

SCOPE AND CONCERNS

Visit: <http://www.Learning-Journal.com>

SUBMISSION GUIDELINES

Visit: <http://www.Learning-Journal.com>

INQUIRIES

Email: cg-support@commongroundpublishing.com