

The effectiveness of enabling programmes for university entrance

Robert Cantwell, Sid Bourke & Jennifer Archer

Faculty of Education

University of Newcastle

Paper presented at the AARE Conference, Brisbane, December, 1997.

The effectiveness of enabling or bridging programmes as a necessary precursor to undergraduate university education requires substantiation for a wider range of tertiary students. There are many variables likely to affect the academic success of mature-age students who enter university through enabling programmes: age, gender, occupational history, family circumstances, ability, self-confidence, achievement goals and approaches to self-regulation of academic behaviour.

Two cohorts of students who completed an enabling programme were traced into their undergraduate studies, and comparisons were made of their academic success with traditional-entry students who were enrolled in the same subjects. Group differences were further investigated by way of interview. Analysis of protocols indicated that while ex-OFC students stronger mastery goals, lower alienation goals and greater confidence in decision-making and self-appraisals, it is likely that the differences may be explained by a degree of "inflation" linked to the late acquisition of these attributes by ex-OFC students. The lack of group differences on performance measures would support an interpretation suggesting that the OFC programme has provided sufficient preparatory background to allow the successful graduates to match the performance and attributes of more traditional-entry students. This itself is a significant equity finding.

Introduction

This paper examines the undergraduate performance of students who entered university through an enabling program (The Open Foundation Course or OFC) as mature-aged students. Their performance, and factors which may have contributed to their performance, are explored both quantitatively (using data reported in Archer, Bourke & Cantwell, 1997; under review) and qualitatively on the basis of interview data from both OFC entry and non-OFC entry students. The aim of the paper is to provide both amplification and qualification of the data reported in Archer, Bourke and Cantwell (1997; under review) indicating both positive and negative outcomes amongst both cohorts of students. The interview data, by virtue of its voluntary nature, is not presumed to be entirely reflective of the two students cohorts. On the one hand, the ex-OFC participants a by definition may only reflect the more successful graduates of the OFC program (approximately one third of the original 1996 OFC cohort, for example, matriculated into degree programs), while the participants from the non-OFC cohort are more likely to reflect those students who, for whatever reasons, don't object to completing questionnaires! Despite these limitations, much of the interview data was consistent with the expectations generated by the quantitative analyses.

In our previous report, we compared (Archer, Bourke & Cantwell, 1997; under review) OFC entry and non-OFC entry students on a range of measures of individual differences, including career decision making and self-efficacy, motivational goals, self-regulatory behaviour, verbal abilities and evaluations of teaching. These domains of individual difference are described below:

Career decision-making and Self-efficacy: In the present study, a measure of student's confidence in making decisions relating to their university course and to their selection of a career was taken. Bandura (1993) argues that a belief in one's competence is the guiding force behind thought and action. Effective intellectual functioning requires much more than simply understanding the factual knowledge and reasoning operations for given activities. The self-regulatory social, motivational, and affective contributions to cognitive functioning are best addressed within the conceptual framework of the exercise of human agency. (p117-118)

The higher a student's perceived self-efficacy, the more likely she is to tackle what is for her a challenging task and to persist with it when difficulties arise. Without such confidence, a student will retreat altogether from the task, or, with mounting anxiety and self doubt, put off approaching it until the last moment, by which time it is almost impossible to produce work of high quality.

Motivations: Two types of achievement goals in particular have been proposed (Ames, 1992; Blumenfeld, 1992; Elliot & Church, 1997; Harackiewicz & Elliot, 1993). One has been referred to as a performance (or ego) goal. Those who hold this goal are concerned primarily with demonstrating their ability to others (or if this is not possible, to conceal a perceived lack of ability from others). This is shown to best advantage by outperforming others particularly if success is achieved with little effort. The second goal has been labeled a mastery (or task,

or learning) goal. Those who hold this goal want to develop their competence on a task or increase their understanding of a subject.

Furthermore, they expect to work hard to achieve this. In addition to performance and mastery goals, a third goal called academic alienation (or work avoidance) has been identified (Archer, 1994; Nicholls, Patashnick, & Nolen, 1985; Duda & Nicholls, 1992). The intent here is not understanding or demonstrating competence to others, but to complete work with the minimum of effort. The desire of the alienated student to exert as little effort as possible should be distinguished from the performance oriented student. For the latter student, success with little apparent effort provides evidence of high ability, or failure with little effort does not provide evidence of low ability. For alienated students, however, their proclaimed lack of effort is not a hedge to conceal a lack of ability. They are not concerned about looking smart or looking stupid in front of their peers.

Though acknowledging that motivational goals can be considered as relatively enduring traits, it is accepted that environmental factors can affect motivation. Ames' (1992) work focuses on ways in which educational situations can be structured to encourage student's adoption of a mastery goal. For example, a highly competitive environment can arouse feelings of anxiety in students who fear being exposed as incompetent - the "downside" of a performance goal (see Bandura, 1993). This anxiety interferes with student's ability to focus on the task, to recall prior knowledge, and to activate useful cognitive and self-regulatory strategies.

Self-regulatory behaviours: In recent years much attention has been focused on the self-regulatory aspects of learning, that is, student's awareness of themselves as learners and the strategies they select to complete their work (Pintrich, Smith, Garcia, & McKeachie, 1993; Winne, 1995; Zimmerman & Pons, 1988). Effective learners possess and use their knowledge about the process of learning, and this allows them to organize, plan, and monitor their learning. For example, a student completing a major assignment may stop every so often to review the work she has done, and if she feels dissatisfied with it, decide to change tack and adopt new work strategies. Knowledge of self-regulatory strategies, though, is not enough in itself. Students also need to know how, when, and where these strategies should be used (Cantwell & Moore, 1996; Winne, 1995), what is called conditional knowledge about self-regulation.

Research points to differences among students in their knowledge of, and conditional use of, self-regulatory strategies (Cantwell & Moore, 1996). In general terms, a distinction has been made between adaptive and maladaptive practices in self-regulation. Students with adaptive practices know that they need to be flexible in planning for ways of accomplishing different tasks and in monitoring their thinking about the tasks. That is, methods of study have to be adjusted to meet the demands of particular tasks. Students with maladaptive practices may be inflexible in their approach, refusing to adjust their methods of study to suit particular tasks; or students may be confused and uncertain about why and how to adjust their strategies to suit different tasks. Cantwell and Moore describe these self-regulation practices using the following terms: adaptive, inflexible, and irresolute.

Evaluations of teaching: The environment (both the task itself and the conditions surrounding the task) exerts considerable influence on performance.

Though motivational and self-regulatory variables can be relatively enduring, a student is unlikely to "throw himself" into an activity that bores him, or one that he thinks is beyond his capabilities. For students who doubt their capabilities to complete tasks, and who fear public exposure of their incompetence, hostile environments can induce debilitating anxiety that interferes with their ability to make use of relevant self-regulatory strategies that they would be capable of using in less threatening circumstances (Bandura, 1993). Boekaerts (1997) and others emphasize the "person in the situation" view. That is, thoughts, emotions, and behaviours are understood most clearly within particular situations, be it an activity or a task or a course of study. As Boekaerts points out, research shows that there can be considerable variation in thoughts and behaviour in an individual as she moves from one situation to another. As noted in the section on achievement goals, Ames (1992) has described conditions under which students are most likely to feel confident of success, and to display effective coping strategies, even when they are experiencing difficulties.

Verbal abilities: Verbal aptitude forms a significant part of most measures of ability. Particularly in the case where assessment is in written or oral form (such as essays, assignments, and examinations), it can be argued that verbal aptitude is a facet of prior knowledge. Students experienced in the use of formal language should be able to express themselves in a clear, logical manner, and therefore should perform better than students unable to express their thoughts clearly.

In this paper, we investigate, through individual interviews, factors which may provide amplification and/or qualification of group differences identified in the earlier report (Archer, Bourke & Cantwell, 1997). Our focus is on two broad areas of group differences only: motivations and confidence in decision-making.

Method

Fifteen students who had taken part in the Archer, Bourke and Cantwell (1997) study were approached by phone to take part in the interviews. These included eight students from an OFC-entry background (2 males, 6 females) and seven students from a HSC-entry background (one male, six females). Interviews were conducted individually in tutorial rooms by the second author. All interviews were audio recorded and later transcribed for analysis. Interviews generally took around 30 minutes to complete. Measures of individual differences and academic achievement data were those reported in Archer, Bourke and Cantwell (1997).

Results

Group differences:

Data from Archer, Bourke and Cantwell (1997) indicated that the OFC-entry and HSC-entry students differed on several of the measures of individual differences (see Table 1). OFC-entry students reported higher mastery goals (although both groups averaged above 4 out of 5 on this measure), marginally lower performance goals and significantly lower academic alienation goals. There were no differences on the measures of self-regulatory control. The groups differed on confidence measures in relation to problem solving, planning and self-appraisal. For each, the OFC-entry students scored more highly. The groups also differed on the analogies component of the verbal abilities test, again with OFC-entry students scoring more highly. There were no differences in relation to measures of course satisfaction.

In summary, OFC-entry students reported more functional achievement goals, more confidence in decision making and general self-efficacy levels, while they did not differ from HSC-entry students in terms of self-regulatory processes guiding their learning. Evidence relating to these areas of group difference will now be considered from the interview data.

Related qualitative evidence:

1. Motivations

In broad terms, the group differences suggested OFC entry students to be more mastery oriented, less alienated, and marginally less performance oriented.

Ames (1992) has linked the adoption of particular achievement goals to the nature of the interaction between the student and the environment. That is, students do not necessarily set their own motivational agenda. The kinds of messages explicitly or implicitly sent through the learning environment will act as significant mediators of the form in which achievement goals manifest. In the case of the ex-OFC students, the interaction of clear goals of personal development (see also Cantwell & Mulhearn, 1997; Wilson, 1997) with a perceived supportive learning environment (at both the OFC and degree levels) is more likely to foster a greater sense of mastery than other kinds of goals.

Table 1: Descriptive statistics for ex-OFC (n=71) and non-OFC (n=61)

students for variables

included in the Archer, Bourke & Cantwell (1997) study (* = significant)

difference)

(Tables available from authors on request)

There was a clear trend in the responses of the ex-OFC students to link motivational goals with an enjoyment of learning - in many ways a reaction to the opening of knowledge vistas that had been denied them in the past. "Daniel" (a pseudonym), for example, spoke of the new intellectual world associated with his return to study as a mature aged student: Well I am [competitive] to a point but I don't see marks being the be all and end all. I find the education in itself has been a reward. People are always gasping because I'm a mature age student, why are you doing university, what are you going to do after you finish your degree, it's always what are you going to do with that and I sort of tell them that I'm hoping to do a certain number of things but education is rewarding in itself, it's wonderful. Just to learn, just to learn, just to broaden your outlook, just to learn all these things and to see life in a new way, see things in a new way.

For many of the ex-OFC students, such achievement goals were not always the primary motivating force, and their adoption was not always without cost. Most began with ill-defined notions of self-improvement - in many respects with a desire for some form of identity generation. The notion of university study was seen as fulfilling a need for change of self or more instrumental goals of career and lifestyle advancement. "Lucy", for example, saw her initial motivations upon entering the OFC in personally instrumental terms:

Well I've always been the type of person that if I were going to do something I tend to put myself into it, if I'm going to do something I like to try and do it to the best of my ability and my motivation for being here really is at the end I want to be able to get myself a job but I want it to be a job that I enjoy, I don't want to just go out and work in a sandwich bar, I want to do something that's rewarding and I enjoy.

By the second year of her degree, Lucy had come to focus more on the intrinsic value of her learning: I think I started off with the same motivation, like I've still got that original motivation, like get on and do something rewarding and get a career but probably it has to change now that I've actually got into doing a subject, got involved with a subject. You do start to, it broadens your mind, you do start to think, you realize that you've been, well before I came here I felt like I was vegetating, I wasn't using my mind at all, I was just going along the same, but this stuff definitely university has broadened my mind.

For "Jane", initial motivations were instrumental in terms of both finding a vehicle "to achieve something" and enhancing her career possibilities. The realization that knowledge and understanding could accompany these came later:

That was why I came, there was no ambition to do any more, was just to get in and I remember the first week, sitting in OFC, I thought my goodness what am I doing here and I was doing ... and we were doing algebra I think it was and I was lost, it was all foreign and I thought I've really done the wrong thing and I did social enquiry and I thought that sounds interesting and I think the first three weeks I was lost in that, it was just completely foreign then all of a sudden everything started to, it was like the brain woke up, you know, it was just all of a sudden things started to, I could understand them

By the second year of her degree, Jane was clearly rejecting the competitiveness associated with performance goals, emphasising her intrinsic interest in the subjects of choice: I find psychology quite competitive, everyone's wondering, counting on whether they're going to get into honours or not because there's only a very few that get in and even in second year they're sort of working out whether they're going to make it in that top percentage that's going to get in. See I'm not looking to go on to honours or research so I guess I've got a different outlook on psychology to what they are, I'm doing it because I'm interested in it. Basically all my subjects I do more for interest, I'm not competitive really. I don't have time for competition.

For many the maintenance of these goals imposed costs on personal relationships. These students made decisions to develop through university study, and to protect these decisions, many aspects of their personal lives changed. "Cathy", for example, linked her own growth experiences in OFC and beyond to profound relationship changes: All of a sudden this person was developing intellectually, doing very well in the big world and I felt that it was a real challenge, he [Cathy's husband] knew the status quo was not going to be maintained, there was going to be changes in myself and independence was developing, not that I hadn't been hindered, I had always worked but the dynamics of the relationship changed. I would say that's a result of my personal growth and experience and maturity but that was the first casualty. There was other casualties along the way because I found that I became very much more goal orientated. I became very much more aware of my needs, both as a woman and also towards the end of the Open Foundation, that I put my husband out on September 14 and I then, I'm going to have to be provider for my children and so I think you developed a goal oriented focussed approach to life. I mean you cut the crap out and you become very clear on how you prioritize it.

Persistence, or to use Corno's (1993) term, volition, appears to underlie Cathy's decision and determination to pursue self-growth and development:

I think that was one process, however I started the other process of learning, of education, and I wasn't prepared to let anybody interfere, intervene in that process. I guess I would have to say it was jealousy guarded because it was for me and I'll tell you that was a process that was strongly, people were trying to undermine that process because one, they didn't understand, they hadn't been through an educational process or two, it meant that there were changes in friendships and family dynamics. One felt I had to, I felt that I had to become a very assertive and very focussed because it would have been very seductive to be taken off the track. For "Daniel", the cost of pursuing high-level achieving goals also reflected changing friendship patterns: People that support me are pretty much the people that I met here when I first started because I've cultivated a real group, I've made a group of friends here through coming to uni and usually we ring each other up and say how are you

going with that, how are you going with that, so I get support from them. Not so much from my other friends because a lot of them don't go to uni and it's a bit hard because you can't really talk about these, although the subjects I'm doing are interesting, see this is the thing, going back to education being a rewarding thing, I find a lot of really things interesting and I want to talk about them, sometimes my friends don't want to talk, well it's not that they don't want to, it's just that they don't know what I'm talking about. "Daniel" stop that, what are you doing, you're becoming an intellectual, I'm becoming an intellectual.

What of the HSC-entry students? Like the OFC-entry students, these students also reported relatively high mastery goals - perhaps, as we suggested in our previous paper (Archer, Bourke & Cantwell, 1997) indicating a ceiling effect for this particular goal. Nonetheless, the younger students were still endorsing the enjoyment of learning for its own sake, albeit perhaps without the same fervour as evident in some of the ex-OFC students. "Helen" was typical of these students: Why do I do it, good question. Sometimes it's the topic that's

interesting, finding out more information about what we're talking about so I can discuss it with people and know what you're talking about and I guess because I enjoy a lot of the subjects that are set, I enjoy doing them.

Unlike the ex-OFC students, where motivations are often associated with both lifestyle changes and often tempered by extraneous demands (see below), for the HSC-entry students, motivations appeared most tempered by competitiveness (both self-directed and externally-directed) as well as by a sense of impatience to get out into the "real" (financially better-off) world. For "Liz", self-directed competitiveness was ultimately linked with renewed intrinsic interest in her course. Asked what motivates her in academic work, Liz was adamant:

Good grades. Good grades, I've never failed anything. So good grades ... Not necessarily [competing with others], I just want to do better than what I did last time. I just want to compete with myself more than anybody else. If I got eighty six last time then I won't be happy unless I get eighty seven and if I don't get eighty seven I'll work to get eighty seven ... Just beat myself, just beat myself. Always like improve upon what I got last time and improve on myself.

Liz did acknowledge, nonetheless, that her progression through her degree had seen a shift towards increasingly "mastery" type goals: I'm doing it now because I want to, like I said if I didn't want to be here now I'd leave, whereas in the HSC I did it because I had to because I don't know, this might sound a bit weird but if you haven't got an HSC there's not much you can do. Like there's not many jobs that you can get and not many places you can go so I did it because I had to, whereas now, I mean I could leave uni and I've been offered a full time job, I could leave uni and get a really good job but I'm sort of here because I want to be here.

For some, however, progression through the degree was marked by an increasingly instrumental view of learning. "Sam", for example, while not dismissing the intrinsic value of his course (indeed he saw a future as an research academic as

attractive), did begin to perceive less intrinsic purposes in his study: I guess as you get towards the end of your career you start to think more vocationally and I just want to get a uni degree but as it starts to get towards the end of the year you think I need the marks so I can get a job, I guess that's about the only change in focus, when I first came here I wasn't very, wasn't concerned about the vocation afterwards, I was concerned more with the academic then, I've started to think more about that sort of thing now.

For others, initial enthusiasm began to be tempered by degrees of cynicism about the functioning of their courses. "Natalie", for example, began to see the assessment processes as inconsistent and demotivating: Why do I do it, if I find it interesting and maybe a bit challenging I'd be more motivated to find out stuff about it and do the tasks, where it's just something I've done over and over again, it's boring, there's no challenge in it, I'd be less motivated to do it ... If anything I might be slightly demotivated now as compared to when I was in my first year ... Like just recently some of the assignments you hand in, if you don't put much effort in you still get a really good mark, it's like, I don't know, I didn't think it was very good and deserving and the mark's demotivating in a way ... I don't really enjoy getting an assignment back that I don't think I did very well and get a good mark. It's still a buzz to get a good mark but it's not as great if I put in something that I thought that was really good and was rewarded accordingly.

It is not surprising that both ex-OFC and non-OFC entry students should all perceive mastery type goals as the predominant motivational paradigm underlying their study. For the ex-OFC in this study, the stories are ones of success - from the initial lifestyle changing decisions to re-enter, through the completion of the OFC, to success in degree programmes. In terms of life histories, the ex-OFC students probably committed more to the endeavour of tertiary study than did the younger students, if only because of the potentially more profound cost of not completing.

2. Confidence, efficacy and the management of learning.

The group data also indicated some advantage to the mature-aged students in terms of general confidence in problem solving, planning and in self-appraisal.

Ancis and Phillips (1996) have identified a link between self-efficacy and decision-making as indicated in Taylor and Betz' (1983) instrument. Self-efficacy, as defined by Bandura (1993; 1996) acts as a strong predictor of agentic decision-making. As individuals experience success related events, then the likelihood of internalising the causes of these positive experiences in terms of controllable and self-enhancing ways is increased. As successful graduates of the enabling programme, and as successful undergraduates (at least to the time of measurement), it is not therefore surprising that the ex-OFC students as a group should increasingly perceive themselves as successful planners and problem-solvers, and to appraise themselves in a positive light. In a companion paper presented in this session (Cantwell & Mulhearn, 1997), novitiate OFC students were interviewed as to their adjustment behaviours. One clear pattern across these individuals was a combination of determination to improve combined with consistent self-doubt as to the possibility of achieving the desired change. For the interviewees in the present study, many of these

tensions appear to have been resolved - the fragility of the self-efficacy judgements apparent in Cantwell and Mulhearn's (1997) data do not appear to be evident in the current data. Evidence of these changes appears in three aspects of the data: in the increasingly more proficient time-management and study skills, in the increasingly sophisticated epistemologies, and in the self-confidence expressed in relation to eventual completion.

Time management issues have been seen in the literature as a major source of concern for mature-aged students (eg. Wilson, 1997). Balancing the demands of work, family and study inevitably means for these students an obligation to become efficient managers of restricted time, or risk the possibility of being overwhelmed by competing demands. "Cathy", perhaps a little more extremely than others, used the analogy of the army camp to describe her means of coping as a single parent: ... so my life is organised rather round the line of an army camp.

... .. but I mean there has to be a lot of negotiations, give and take, with

the children and people around me and family. Sometimes like you know I get

really frustrated, I have to prioritise my life but I've found as I've

gone on through the uni I have to prioritise some play time because otherwise all work and no play makes "Cathy" a very dull girl. So I prioritise my children

and then I take time for myself.

For others, extra responsibilities create an even more urgent need to keep in control. "Jane" for example has found the pressures of caring for a now disabled husband an enormous counterbalance to her desire to achieve in her degree: He's been medically retired from work in September last year so we've been through health ... and psychiatrist visits, he's gone deaf as well, he's lost fifty percent of his hearing plus he's got chronic depression with ... so he, we have nights where he just doesn't sleep, that was last night, that's why I'm looking a bit tired but we have nights where he's up walking around, he's just got too much energy and can't sleep and then other times he sleeps all the time, doesn't stop sleeping and he's at the moment, I find I'm putting a lot of energy in trying to get him involved in something, anything, just something, but I think if, he doesn't like me being here, he hasn't liked me being here from the beginning but I'm determined it's not going to stop me.

Vispoel and Austin (1993) have suggested that the way individuals interpret the success and failure of past learning experiences will play a predictive role in explaining future performance. In particular, they found that where students ascribe guilt and shame to failure experiences, the likelihood is of negative expectations for future performance. This kind of process is one that is critical to mature-aged students' time-management processes (Carafella & Olsen, 1993; Wilson, 1997), and its resolution must be seen as a critical self-efficacy component in mature-aged students' academic progress. "Mary's" experiences demonstrate this process. Asked whether she was coping with the demands of life, she responded: Yes. Have a big problem with guilt. Never felt guilty about going to work full time but feel guilty about missing school activities because of being at university which is really odd. I tend to leave a lot of reading till after the girls have gone to bed so I'm not taking up

their time. For "Lucy", the scheduling of activities has only become possible as her family itself has grown up. Even then, attention to time and task is crucial: I think I'm carrying it in the posterior, when it comes exam time and that, so I take washing off the line, I've got to go to the library from one till four, because I've got eight hours of lectures and tutes over two days. I've got a break now until two o'clock so I tend to go and get a cup of

coffee and do some work and I tend to do the bulk of the work here and then

maybe one night and then weekends, like Saturday mornings if nobody's home,

I tend to do it then or Sunday afternoon I'll say I'm not going to be here

for a few hours, they don't mind either. They think they can go to the beach

or get in nine holes of golf. I don't think it would have worked if I'd done uni sooner.

Are the pressures of life unique to the ex-OFC students? Data do indicate greater variability in the demands placed upon the non-OFC students, but for some life demands can still be stressful. "Helen", for example, deals constantly with somewhat dysfunctional family relationships: I do. I have ... that affect my parents have separated and that sometimes my stepfather can be very difficult and when ... lifestyle staying up late, TV on, making a lot of noise, my room's next to the bathroom, and it becomes very disturbing to my study. A couple of times I've actually had to go and stay at my grandparents because it's just too, affected me badly. And my stepfather and my brother, it becomes hard to create a relationship with my brother and then my father is somewhat ... person and he can at times, tend to be very abrupt. Sort of making my mother out to be the bad person and he's the good person, I'm caught in between and the relationships with my friends and then my boyfriend but they're not a great pressure as my family, they're a bit more of a relief.

Many of the younger students also assume some of the financial burden of their study through part-time employment. This too creates a need to organise and

prioritise: I am [coping], I could be more organised, I know if I was more

organised it would take a lot of the stress off me, especially towards the end

of the year, when there's assignments and only three weeks to go and other

people kind of say oh I've finished them and you think wow, that's really good

but I do get down a lot.

Similarly, "Liz", balancing ever increasing time demands of work, study and social life, actually found her academic performance improving. When asked to explain why, she commented: I think it's because I'm saying to myself, I'm heaps busy, I've got to get in and do it now instead of saying, oh I've got a bit of time, next week looks good, know what I mean. I'm a bit more, I make a lot better use of my time now, I can do two things at once,

like I highlight journal articles on the bike at the gym and I read my novel while I'm at treadmill. With an English novel I read it more than once, I mean I read it two or three times and I'll read it and then I'll watch the video and then I've got in my car Othello on cassette, I'm driving to uni listening to Othello.

Of course, for some of the non-OFC students, issues of time-management are less pressing. "Natalie", for example, when asked whether she had a lot of demands in her life outside of university, was unequivocal: No. Where development of time-management skills may be seen as a necessary prerequisite to effective study, these are of themselves insufficient to explain performance. Critical to the effective use of time are effective study strategies and sensitivity to the intellectual demands of study. That is, students must not only plan, they must also display proficient academic problem-solving skills. Janssen (1996) for example, coins the term "studaxology" as a descriptor of the process of becoming more expert in the process of studying itself, independently of the substantive content of that study. To cope with the demands of degree level study, students must display an increasing proficiency in the process itself. These are the higher-order skills of studying. In the words of Ertmer and Newby (1996):

It is not merely the amount of knowledge or number of skills possessed that

distinguishes [expert] learners from their less successful peers, but rather their ability to implement appropriate regulatory strategies when they

become aware that certain facts or skills are missing from their learning

repertoires that are necessary for reaching desired academic goals (p1).

Data from Cantwell & Mulhearn (1997) provided some evidence that novitiate mature-aged students may experience difficulties in this respect, and that deficient study skills may be a significant source of potential failure (see also Meyer, Dunne & Sass (1992) for a comparable description of "at risk" traditional entry students). Mastery, therefore, of the elements of expertise in study would seem to be an important attribute of successful mature-aged learning. We look at the development of one aspect of this by way of example.

Richardson (1994) has suggested that mature-aged students study skills are in general no less effective than those of traditional-entry students. To the extent that all students at degree level must possess a functional repertoire of skills and strategies if they are to succeed in study, then Richardson's findings are perhaps not surprising. However, while both groups of students may manifest equally proficient study skills, efficacy judgements related to these may differ. For the ex-OFC students, these were skills to acquire as mature-aged students. For the traditional-entry students, developing such skills is more about refinement than acquisition. Like many of the ex-OFC students, for "Daniel" this developing effective learning skills began with the OFC programme: I learnt them at uni. I learnt them by getting, a couple of times when I had to do essays, in OFC, when I first came to do Open Foundation, like I did my HSC in 1978 so it's quite a long time between doing the HSC and then coming back in 1995 we'd been given a one thousand word essay which I thought was just huge, how am I going to write a thousand words, I have no idea, and just some of the comments that I got, to work on this, to work on that, I bought an essay writing book and I

had a couple, we had a student meeting group with a couple of people from OFC, we had like a group of six that used to help each other.

For "Lara", the OFC allowed for the acquisition of a way of thinking about study and learning that was, to all intents, quite new to her: I would never have coped and I know a lot of people don't like Dr XX, I just found she was wonderful although she was very proper and everything else, she really taught you how to write an essay and then I followed it up with some history and other ones they did in the holidays and I and then sociology I didn't fail, but I was close, fifty four or something. I couldn't believe it and I must have bordered on plagiarism because I hadn't referenced properly and I thought I'm going to leave, I can't do this and I thought no, I want to do this and then I've sat down and looked at it. You know sixty two or something in the next one, I really tried with the next sociology, that was really difficult and I really did come ... it really taught me a lot and I just learnt I can't do things my way, there are proper ways of doing it and I really thought after Open Foundation I could write an essay.

A significant function of the OFC, then, was to introduce the students to the requisite skills of university study. For "Meg", the explicit instruction given in OFC classes provided a "reference-book" which she was able to use and build on in her degree years: Well she taught us research skills, she taught us by using the library, she also taught us how to set out an essay properly, footnoting. The Open Foundation also does that precourse skills for people going into Open Foundation and that was very good because they talked about taking lecture notes, ...footnoting, using English. Just setting out things and I thought that was quite handy and I found that very handy and they even gave you a book and I sometimes refer back to that just to see if I'm setting out properly. I sort of don't use it as much, the first year I did, I found it really handy and I still go back and look at the footnoting to make sure I'm doing it correctly and even in Sociology, they've got like basic how to set out an essay, and how to put, oh they use the Harvard system.

Unlike the ex-OFC students, the non-OFC entry students saw the process issues in learning as generally part and parcel of their prior school experiences. For many of these students, knowing "how" to learn and write was not a matter of conscious concern, but more one of recognising their informal acquisition. When asked whether her HSC years had helped her development of academic skills, Kate" was quite dismissive: I don't know, I didn't see it as a big deal, I just went out, studying and writing out notes and reading them the night before ... We had, I went to a Catholic school and we were given in tutor groups, some mornings we were given little packages, like how to study and how to write up a timetable, I don't think anyone actually went over it with us, no one actually sat us down and showed us, the timetable for studying. Our teachers said to us you should write out study notes and summarise your work and get all the important points out and stuff, but that was all I think ... No one taught them to me, no.

Others acknowledged the role of the school in developing academic skills, but, like "Kate", saw it as an indirect rather than direct effect of schooling. "Natalie" provides an example: Not directly, but indirectly I'd say yes. If I'd come to uni without having done anything before I'd have found it a lot more difficult than having already been at school in a situation like that.

That's more indirectly. I suppose my knowledge, because I did PE as an HSC course and I'm doing PE now, I've already learnt a fair bit as compared to those that do PE at school, so that's helped.

In "Liz" case, the skills acquired in high school were not seen as adequate for university anyway: Yes. Our teacher was good. I was good at it in the HSC, the HSC text and then in first year I was trying but I sort of lost it because there was a lot of critique reviews and things that I wanted to jam in there whereas in the HSC I didn't have to do any of that really and then I sort of picked it up more towards second semester of first year.

Discussion.

The study sought to amplify certain aspects of the group differences identified in Archer, Bourke and Cantwell's (1997) study of the academic performance of ex-OFC and non-OFC entry students. Two areas of difference were qualitatively examined through interview: motivations and confidence in decision-making. In relation to the motivational goals, it was apparent from the interview data that amongst the ex-OFC students there is ample evidence of commitment, persistence, and intrinsic interest in the degree programmes. These are all attributes of a mastery orientation, and mitigate against feelings of alienation. On the other hand, the data from the non-OFC background students does indicate some tempering of the mastery orientation combined with greater awareness of the competitive nature of senior degree-level study, and to some extent, dissatisfaction and alienation from the environment. In relation to decision-making, the data did indicate greater concern with time-management and study skill issues on the part of the ex-OFC students.

Why these differences? Partly the interview data is suggestive of different ways of looking at the same beast. For the ex-OFC students, university study is a mid-life decision. It is one that is consciously made, and one which has required significant planning and commitment if it is to be successfully achieved. Moreover, in the context of prior life histories, the ex-OFC students have come to the task of university study generally ill-prepared for the logistic and intellectual demands such study imposes, and, if Cantwell and Mulhearn's (1997) data is any indication, with often quite naive understandings of the nature of university study. The acknowledged debt to the OFC programme as a preparatory step was a feature of the interviews with ex-OFC students, and serves to highlight the degree to which these students were effectively unprepared for tertiary study at the point of re-entry. Given all of this, it is hardly surprising that when, in the space of two to three years, these students are able to reflect upon successful experiences in enabling courses and degree level courses, that they should also experience significant self-efficacy growth. A normal consequence of such self-efficacy growth is the confirmation of mastery-type goals and the expression of greater confidence in one's own abilities.

On the other hand, all non-OFC students interviewed came to university study directly from the HSC. They were aware of the nature of "study" from the outset, and had immediate and continuous experiences of study which they could use as referents for university study. In

Janssen's (1996) terms, the non-OFC entry students were "expert learners". Development for these students was not a matter of sudden change. Rather, there is a sense of evolution in their development as tertiary rather than secondary students. Moreover, given their successes as secondary students, it is also not surprising that they should also reflect quite high levels of mastery goal affiliation, nor indeed that there should be some tempering of this as future vocational decisions become more immediately relevant.

Is it possible, however, that the group differences in self-evaluations evident in the Archer, Bourke and Cantwell (1997) data are essentially artifacts of prior histories rather than real differences? And secondly, are these differences fundamentally important? It is possible that for the ex-OFC students, the experience of success has led to an overrating of their perceptions of the quality of their motivational goals and decision making prowess. To achieve, or at least be close to achieving, what must have appeared from the outset as quite challenging, if not for some almost unrealistic, personal goals in such a short period of time (Cantwell & Mulhearn, 1997, Wilson, 1997), may well have produced a potentially flawed over-estimation of their motivational states and working habits. Nonetheless, given that the performance measure (GPA) used in the Archer, Bourke & Cantwell (1997) study revealed (a) a generally high level of academic outcome, and (b) no difference in comparison to the non-OFC entry students, it is reasonable to conclude that even if the affective self-evaluations are inflated to any degree, it is probably not important to any significant measure. What is perhaps more important for these students, and for the university itself, is that the equity and access objectives of the OFC programme appear to be being met.

References

- Ancis, J. & Phillips, S. (1996). Academic gender bias and women's behavioural agency self-efficacy. *Journal of Counselling and Development*. 75, 131-137.
- Ames, C. (1992). Classroom: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261-271.
- Archer, J. (1994). Achievement goals as a measure of motivation in university students. *Contemporary Educational Psychology*, 19, 430-446.
- Archer, J., Bourke, S. & Cantwell, R. (1997). Enabling students and achievement: Some relationships. Paper presented at the 7th Conference of the European Association for research on Learning and Instruction. Athens, Greece, August.
- Archer, J., Bourke, S. & Cantwell, R. (under review). University study via an enabling program: Achievement, motivation, and self regulation. *Higher Education Research and Development*.
- Bandura, A. (1996). Failures in self-regulation: Energy depletion or selective disengagement? *Psychological Inquiry*. 7, 20-24.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28, 117-148.

Blumenfeld, P.C. (1992). Classroom learning and motivation:

Clarifying and expanding

goal theory. *Journal of Educational Psychology*, 84, 271-281.

Boekaerts, M. (1997). Self-regulated learning: A new concept embraced
by researchers,

policy makers, educators, teachers, and students. *Learning and*

Instruction, 7, 161-186.

Cantwell, R. & Mulhearn, W. (1997). The adjustment behaviours of
mature-aged women

returning to formal study. Paper presented at the Annual Conference
of the AARE,

Brisbane.

Cantwell, R.H., & Moore, P.J. (1996). The development of measures of
individual

differences in self-regulatory control and their relationship to
academic performance.

Contemporary Educational Psychology, 21, 500-517.

Carafella, R. & Olsen, S. (1993). Psychosocial development of women: A
critical review.

Adult Education Quarterly. 43, 125-151.

Corno, L. (1993). The best-laid plans: Modern conceptions of volition
and educational

research. *Educational Researcher*. 22(2), 14-22.

Duda, J.L., & Nicholls, J.G. (1992). Dimensions of achievement
motivation in schoolwork

and sport. *Journal of Educational Psychology*, 84, 290-299.

Elliot, A.J., & Church, M. (1997). A hierarchical model of approach and avoidance achievement goals. *Journal of Personality and Social Psychology*, 72, 218-232.

Ertmer, P. & Newby, T. (1996). The expert learner: Strategic, self-regulated and reflective.

Instructional Science. 24. 1-24.

Harackiewicz, J.M., & Elliot, A.J. (1993). Achievement goals and intrinsic motivation.

Journal of Personality and Social Psychology, 65, 904-915.

Janssen, P. (1996). Studaxology: The expertise students need to be effective in higher education. *Higher Education*. 31, 117-141.

Meyer, J., Dunne, T. & Sass, A. (1992). Impressions of disadvantage: I - school versus

university study orchestration and consequences for academic support. *Higher Education*.

24, 291-316.

Nicholls, J.G., Patashnick, M., & Nolen, S.B. (1985). Adolescents' theories of education.

Journal of Educational Psychology, 77, 683-692.

Pintrich, P., Smith, D., Garcia, T., & McKeachie, W. (1993).

Reliability and predictive

validity of the Motivated Strategies for Learning Questionnaire

(MSLQ). Educational and

Psychological Measurement, 53, 801-813.

Richardson, J. (1994). Mature students in higher education: II.

Academic performance and

intellectual ability. Higher Education, 28, 373-386.

Taylor, K.M., & Betz, N.E. (1983). Applications of self-efficacy

theory to the understanding

and treatment of career indecision. Journal of Vocational

Behavior, 2, 63-81.

Vispoel, W. & Austin, J. (1993). Constructive response to failure in

music: The role of

attribution feedback and classroom goal structure. British Journal

of Educational

Psychology. 63, 110-129.

Wilson, F. (1997). The construction of paradox: One case of mature

-aged students in higher

education. Higher Education Quarterly. 51, 347-366

Winne, P. (1995). Inherent details in self-regulated learning.

Educational Psychologist, 80,

284-290.

Zimmerman, B., & Martinez-Pons, M. (1988). Construct validation of a

strategy model of

student self-regulated learning. Journal of Educational

Psychology, 80, 284-290.