

CHAPTER FIVE

Towards a More Successful School-University Transition: Insights from a Case Study

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Abstract

An investigation into the transition between senior secondary school and university was undertaken. Specifically, this research is a case study examination of the preparedness of a select cohort of high school graduates to successfully negotiate their first semester of university education. The method of written questionnaire was used to obtain the perceptions of first-year university students, school teachers, and university lecturers from the participating school and university in this study. It is the principal finding that many university-bound Year 12 graduates were lacking in the appropriate skills required to smoothly navigate the transition between high school and university. The school in this case study failed to equip students with the appropriate academic skills and techniques required for students to reach their academic potential. Within the current educational climate this research is timely and implores the stakeholders in both senior secondary schooling and first-year university education to unite and assume responsibility for providing a seamless academic pathway.

Introduction

"There is something fundamentally flawed with the transition of high school leavers to universities" (Chipman, 2000a).

Parents and educators are increasingly concerned at the level of underachievement and dropout rate of school leavers during their first year of university education (e.g., Gardner, 1996; Nunley & Gemberling, 1999). It is possible that the failure of school leavers to reach their potential during this time is related to the way they deal with the major life changes that occur whilst finishing high school and commencing university study. Examples of these may include: an increase in the amount of paid work undertaken by students, increasingly involved interpersonal relationships, and changes in social behaviour relating to drug and alcohol use.

This paper, however, seeks to explain the failure of many first-year university students to reach their potential as resulting, primarily, from their lack of academic readiness. This is achieved through a case study examination of the transition between a single secondary school and a regional Australian university. Although the study provides only a snapshot view, the reader is invited to use the insights and possibilities proposed by this research to assist with improving educational practice in schools and universities.

School-Based Preparation for University: A Problematic concern

Data gathered by Dwyer (1992) suggest that it is the intention of over 60% of Year 10 students within Australia to obtain a tertiary education. American researchers Nunley and Gemberling (1999) argue that today's high-school

graduate needs some higher education in order to secure a healthy economic future. Chipman (2000b) alludes to the massification of higher education on a global level and the positive correlation between education, wages, and employment as reasons why continuing on to university when finishing school is important to the future life chances of students. This paper argues that university study is becoming an increasingly attractive option for Australian school leavers despite the diverse range of post-secondary school pathways currently available.

Coinciding with this increase in the number of students wishing to attend university is the number of students who drop out during their first year of study. Australian research (West, Hore, Bennie, Browne & Kermond, 1986) indicates that the highest rate of attrition occurs in the first year of university study. Vice-Chancellor Don McNicol from The University of Tasmania explains that commencing students (those embarking on their first enrolment at university) have the highest rate of all student attrition at 13.4% (McNicol, 1999). Thus, it could be inferred that students drop out at a higher rate during their first year of university study due to a lack of academic preparation and that the attrition rate declines after this as the students adapt and learn the skills and processes required.

In a study by Carter-Wells (1989) one of the problems identified in the academic preparation of American high school students for university study has been "the decline in students' scores in language, study, and computing skills over the past 17 years, the increased school dropout rates, unemployment, and an overly diversified curriculum lacking integration of study from high-school to university level" (p. 3). The problem concerning an "overly diversified curriculum" is currently a contentious issue within Australian education. During the last decade it has been

the opinion of some educational researchers (e.g., Cornford, 1998; Dwyer, 1995) and a definite trend in government documents (Finn Report, 1991; Carmichael Committee, 1992; The Karpin Report, 1995) to promote a more instrumentalist (vocational) education within secondary schools as opposed to a liberal (academically driven) or emancipatory (transformative and moral) one.

It is a premise of this paper (supported by the educational theory of Carr & Kemmis, 1986) that one of the foremost challenges within Australian education at present is a reconciliation between the theoretical and practical and not, as implied by Dwyer (1995) and Gale (1994), a preoccupation with a university/academic driven curriculum in the senior school. It is argued here that the polarisation between education and training, and general and vocational education is resulting in under-educated students in the broader sense (an emancipatory-based perspective) of the term.

Educational theorists (e.g., Funnell, 1996; Taylor & Henry, 1994) argue for the convergence of general and vocational education as a solution to the perceived overemphasis on the academic curriculum. However, the rhetoric of convergence is manifest in reality by vocational education being promoted to those students perceived by school teachers to be academically unable to attend university. Therefore, vocational education is a poor cousin, in terms of the attitudes of school teachers, administrators, students, and parents to the more traditional academic curriculum.

Recently (May 8th 2000) the Hon. Dean Wells, Minister for Education in Queensland, announced a review of university entry requirements (cited in Chipman, 2000b). A major focus of this review will be vocational education and the possibility of trade-based subjects being included

in the makeup of students' Overall Position (OP) scores. Upgrading the status of these subjects, by including them in OP calculations, is a move that begins the deconstruction of the traditional dichotomy between theoretical and practical knowledge (Carr & Kemmis, 1986; Young, 1972) and therefore must be heralded as progressive and empowering. The case study outlined in this article seeks to interpret the transitional experiences of a select cohort of Year 12 graduates during their first semester of university study, thereby providing the major stakeholders in education (students, parents, teachers, and administrators) with a greater insight into the challenges faced by many of these school graduates.

The Case Study

This article, as a case study, employs an interpretative lens to theoretically ground the methods used (Aoki, 1986). Data collection was through written questionnaire. Consistent with the position adopted, the researcher has attempted to investigate, understand, and explain school/university academic transition issues as identified by students, teachers, and lecturers.

The bounded system, from which the material discussed here is drawn, was a high school and university, both located in a regional centre in Queensland. The school is a non-state co-educational secondary college with an enrolment of approximately 1100, consisting of primarily white-Australian, middle-class students. The university has approximately 15,000 students from varying cultural backgrounds. The three distinct groups of this study (first-year university students, school teachers, university lecturers) were drawn from staff and students of these two institutions. Of the 174 graduating Year 12 students in 1998, fifty-nine (31%) enrolled

in full-time courses at the regional university identified in this study for at least the first semester of 1999. Of these fifty-nine, 34% either failed completely or withdrew from university during the first semester.

Of the remaining students (who did not withdraw or fail all of their units), twenty-one participated in this study. Students completed a questionnaire regarding their first semester university results, their perceptions of the ways schools could improve the academic preparation of university-bound students, and the ways universities could enhance the first year experience of school leavers. Data was analysed by means of discovery, coding, and discounting as proposed by Bogdan and Taylor (1975). Of the twenty-one students who returned the questionnaire, the mean self-reported Overall Position Score (OP) was 9.6 (std dev = 3.9). Table 1 provides an overall view of the first semester performance of the cohort of students targeted in this study.

Table 1: The first semester university performance of the school leavers' in this study.

Statistical label	Number of students	Percentage (%)
Number of students	59	100%
Attrition/fail all units	20	34%
Remaining students	39	66%
Fail one or more units	11	28%
Total number experiencing some form of failure, e.g., 1 unit, or total withdrawal	31	53%

Significantly, as shown in Table 1, 53% of the students in this study experienced some form of academic failure (at least one unit) during their first semester (those

withdrawing totally from university study during this time are included in this percentage as experiencing some form of academic failure). This article, as qualitative research, uses the method of case study as a 'step to action' with a view to developing a better understanding of the reasons behind this alarmingly high figure of attrition and failure.

Research Findings: The Participant's Voice

In this section, attention is drawn to the perceptions of the research participants, with the findings being grounded, exploratory, and descriptive of the bounded system under study (Merriam, 1988). The participating students, teachers, and lecturers were asked for their opinions and ideas regarding how schools could better prepare first-year university students as well as how universities could enhance the first-year experience of high school graduates. The amalgam of responses clearly demonstrated that different teachers, lecturers, and students all perceive situations and their educational settings in varying ways. The analysis of this data is aimed at highlighting these individual responses as well as interpreting and explaining the commonalities that did emerge. These patterns have been summarised under the following headings: The students' voice, the teachers' voice and the lecturers' voice. Under each of these sections the comments of the participants have been categorised according to the etic themes developed by the researcher. The qualitative findings of this research have provided increased insight and tentative answers to the following initial research questions:

- ◆ What are the main transition issues between senior secondary and tertiary education in terms of educational outcomes?

- ◆ How do students, teachers, and lecturers think schools could improve the preparation of university-bound first-year students?
- ◆ How do students, teachers, and lecturers think universities could enhance the experiences of first-year university students?
- ◆ Can the educational outcomes of first-year university students be improved by developing symbiotic partnerships between schools and universities?

The transition issues

Historically, the transition between high school and university is a phenomenon that has been neglected by both schools and universities (Dwyer, 1995). According to educationalists (e.g., Chipman, 2000a; Nunley & Gemberling, 1999) and this paper, the transition between high school and university is problematic for many students. The themes listed below are illustrative of the concerns highlighted by the teachers, students, and lecturers who participated in this study.

Psychological and personal development issues

Writing skills and oral presentations

Independent work and time management

Research/information gathering

Development of critical thinking and analysis

University/school interaction

Career planning and advice

The position adopted in this article is that it is the responsibility of both schools and universities to ensure the transitional experiences of high school leavers are positive. According to the participating students, the challenge of providing Year 12 graduates with the best possible opportunity for achieving their educational goals at university is one that is not being met by the school in this study.

The students' voice

By far the concern most commented upon by students was in regard to the theme of independent work and time management. Students lamented the fact that at university there was not the same level of assistance with their assignments that they had received at high school. One student comment, indicative of the general perception was, "secondary schools need to prepare students for the fact that at university there is limited assistance from tutors/lecturers and there is very little guidance in regard to assignments".

The responses indicated a strong call for more attention to be given to time management skills at the senior secondary level. Some students suggested that they felt "swamped" and "overwhelmed" by the amount of work expected in the first year of university study. One student confided, "I still find myself leaving my assignments till the last few days before they are due". Another student proposed that schools follow university practice by giving students all of their assignments at the start of the semester in order to help with the learning of time management skills and make the adjustment required between school and university less pronounced. Comment was also made referring to the laxity of referencing requirements at school when compared to university.

Approximately half of all student respondents indicated that they felt at a disadvantage at university because of their poor information searching and computer skills. For example, one student suggests, "when we had assignments at school the teachers would just hand out sheets with all the information...that would mean we didn't have to do much research ourselves". Many students felt that the university in question needed to have more tutorials on how to access information and how to use the computer and

library systems with particular reference to the unit they were studying. An example of this is seen through the following student's thoughts: "More direction on how to access and use the computer labs is needed, rather than just a piece of paper vaguely describing what to do". Another student comments, "tutors and lecturers should spend more time on addressing methods of going about assignments and study rather than the content to be learned".

Several students made comments suggesting that senior secondary school should be structured in a similar way to university; implying that this would improve their university readiness. Their comments ranged from simple ideas such as making past exam papers available, referencing, and setting out essays "like they do at university", to more complex issues regarding freedom of class attendance at senior school. One student responds that senior secondary schools could improve the academic preparation of university-bound students by "giving them more freedom...at uni there is no-one chasing you up for homework or assignments, if you don't do it that's your fault".

The dominant tone of responses made by students was negative in terms of how they perceived their own skills. Interestingly, the responses made by teachers were similar in theme. Both students and teachers clearly identified the themes of time management and independent learning skills as particularly lacking with regard to the university readiness of school graduates.

The teachers' voice

An overwhelming number of teachers report that students should be given more opportunity to learn independently. They felt that they were "spoon-feeding" students. One teacher suggests that students should be

allowed to fail at school and be exposed to “harsh assessment” as this would better prepare them for the harsh realities of university life. A similarly styled comment states that “much less force-feeding of students and mollicoddling” should occur within senior secondary schooling. The respondent continues by suggesting that teacher expectations of students should be at the same level as university lecturers and tutors.

“Students have no concept of sourcing and using factual information from others’ work or research to facilitate their arguments” and “students think researching information is reading through their class notes” were indicative of the comments made regarding the theme of research and information gathering skills. In short, it is possible to infer from the comments made that many teachers felt this was an area that could be substantially improved when attempting to achieve a good academic university preparation.

The students’ critical analysis and thinking skills were lamented through the responses made by several teachers, signifying that this is an issue needing to be addressed within senior secondary schools by the school management as well as the Board of Senior Secondary School Studies (BSSSS). Suggestions for addressing this problem included “greater emphasis on thinking skills and process rather than content” and “focusing on learning how to learn”. One respondent recommended that information from a range of subject areas could be brought together critically. Other areas of concern involved the basic writing skills of students while several observations were made regarding the need to encourage students to read more.

Several teachers proposed that schools follow some of the more flexible structures currently operating within universities. An example given was the use of the ‘lecture’

in some situations within senior schools. It was also suggested that Year 12 students could attend seminars given by university representatives explaining what will be expected of them at university level.

In summary, the teacher responses focused on four issues: independent learning and time management, information gathering/research skills, critical analysis, and university/school structure and interaction. Specifically, the majority of teacher participants in the present research thought that enhancing the independent learning/research and information gathering skills of students would lead to an increase in the university readiness of Year 12 students. Although there were many similarities in the responses of school teachers and university lecturers, the theme of students' critical thinking and analysis skills was the focus of many of the lecturers.

The lecturers' voice

Suggestions for enhancing the preparedness of university-bound senior secondary school students included encouraging students to actively participate in discussions and developing the ability of students to present arguments based upon informed opinion. One respondent asserts, "more field work and work experience that requires report writing, situation analysis, and descriptive analysis that is related to literature, theories and models, i.e. less field work and work experience that is isolated from critical thinking and analysis", is needed.

Some observations were made concerning the emphasis placed on exam results and OP Scores, which many respondents felt was at the expense of developing critical thinking and analysis skills. Although not a dominant theme, the issue of students' writing ability was commented upon as an area of concern by some lecturers. Specifically,

it was contended that more emphasis should be placed on literacy skills, particularly spelling and grammar (at secondary level). Additionally, one lecturer commented on the students' lack of oral presentation skills.

According to the responses made, it would seem that there is a perception amongst university lecturers that students require greater individual work and time management skills. Some of the lecturers suggested that if senior secondary schools were structured in similar ways to universities, these skills would develop more fully at the school level. Another lecturer indicated that at the school level more independent, project-based learning would be appropriate. Some lecturers believed that schools should improve the computer literacy of their university-bound students. Specifically, one respondent suggested, "computer-based searches of data bases and data retrieval is required".

A number of lecturer responses indicated that senior secondary schools should provide students with greater opportunities to engage in university study/courses and environments in their final years of schooling. Several recommendations were made regarding senior secondary schools modelling their control (e.g., student attendance and non-submission of assignments) and structures on university-type mechanisms (non-compulsory attendance at lectures, no extensions given on assignments except in extenuating circumstances). Coupled with this were the respondents who felt that at the very least, senior school students should be given more opportunity to visit university in their final school year.

Summary of findings

The results presented suggest that the principal transition issues noted by all three participant groups are the students' lack of independent work and time

management skills, research/information gathering techniques, and poor critical thinking and analysis skills. These findings have served to illuminate possibilities for improvement in the university readiness of high school graduates. For example, many participants in this study recommended that schools and universities work together in mutually beneficial ways for the betterment of university-bound students. This was particularly evident in the responses of university lecturers.

Thus, it is the principal thesis of this article that high school leavers are under-prepared for university study. In short, students who choose the post-school option of university often struggle or fail because they lack the necessary academic skills to succeed. At the very least, it is proposed that these students fail to reach their educational potential during the first semester of their university lives.

Discussion: Raising the Voice

"My colleagues and I at CQU (Central Queensland University) share the Minister's concern at the high dropout and failure rate among school leavers during their first year at university" (Chipman, 2000b).

This statement made by Vice Chancellor Professor Chipman synthesises the rationale behind this paper. A number of conclusions can be drawn from the findings discussed previously. It is argued that the "fundamental flaw" (Chipman, 2000a) in the transition from school to university is that some school leavers are under-prepared for university study. This finding may explain why some students fail, underachieve, or drop out of university, particularly during their first semester.

Education, although contextual and problematic, is centred on the notion of empowering students with a breadth and depth of skills to access, process, and create knowledge. Under this perspective, the purpose of education is to learn how to learn; beginning the lifelong process of education is the primary purpose of schools and universities. The findings presented in this paper, indicate that the education received by university-bound students at the school in this case study failed to equip students with the necessary skills required to achieve this breadth and depth of education. These findings may be applicable across the broader educational setting of school/university transition and are congruent with other research findings (e.g., Nunely & Gemberling, 1999).

It is argued here that the necessary skills required to navigate university education successfully are broader than those currently required to satisfy university entrance requirements. Although schools and universities share many of the same educational goals, there are differences in their structures, pedagogy, curricula, and environment which impact significantly in terms of the transition between Year 12 and the successful negotiation of university study. Brinckerhoff (1996) argues that high-school curricula are more concerned with students memorizing facts. This is in contrast to university level study where lecturers require students to think analytically, synthesise, and integrate information from many sources (Shaw, Brinckerhoff, Kristler & McGuire, 1991).

During senior schooling, students focus on university entrance requirements (often content-based) at the expense of learning how to work independently and process/gather information. McKenzie (1982) suggests that the manner in which parents, pupils, teachers, employers, and politicians perceive the role of school is the "heart of the matter". In

other words, while we continue to view the primary purpose of schooling in terms of its credentialing function, we will fail in our quest to have truly educated students.

Although this argument of Brinkerhoff (1996) and McKenzie (1982) may be contested by some of the rhetoric of Education Queensland policy documents (e.g., *Schooling 2001*, 1998) the notion that, in reality, many students merely focus on gaining high OP Scores at the expense of the process of education is not a new one as evidenced by the work of Dore (1976). According to Dore there is a distinction between schooling that is education, and schooling that is only qualification; therefore making a distinction between the qualified and the educated that, he contends, are not one and the same. This notion regarding the "trained" as opposed to the "educated" senior school graduate has been noted in the previous discussions regarding the competing perspectives of education as well as in the findings of this study.

Preston and Symes (1994) argue that schools and universities are involved in educational processes that bring about human change. Moreover, they should not be treated as factory assembly lines where teachers merely attempt to fill empty vessels until they have a finished product. Rather, one of the primary goals of schools and universities should be about teaching students to think (Sullivan, 1994). Hogan (1990, p. 24) suggests, "the absence of a philosophical mature conception of educational practice...amongst teachers is also prevalent amongst many school management teams, educational authorities, and policy makers". This difference implies that students, teachers and lecturers do not have a shared understanding or vision of what an educated student who leaves the school or university should look like. The lack of shared understanding amongst the major stakeholders in school

and university education, it is argued here, leads to inappropriate goal setting and lack of interest and motivation at secondary level by Year 12 students: specifically, in regard to the skills needed to be successful at university level.

Motivation for learning in university-bound Year 12 students may be enhanced through the closer collaboration of schools and universities. It is recommended that in order for an improvement in the life chances of all Australian youth to be realised, schools and universities, in conjunction with a review of Tertiary Entrance requirements (Wells, ABC Radio, News, Tue, 2nd May, 2000), should investigate ways of forming mutually beneficial partnerships. Despite attempts to create links, the different educational sectors of primary, secondary, and tertiary schooling tend to operate as separate and discrete units (Sirotnik & Goodlad, 1988). This, it could be argued, is at odds with the central purpose of these institutions, which is primarily educational.

According to research (e.g., Sirotnik & Goodlad, 1988) mutually beneficial partnerships between secondary schools and universities have resulted in an increase in the academic preparedness of university-bound students. Symbiotic partnerships between schools and universities are congruent with the emancipatory and critical notion that real knowledge is constructed from an interaction of theory and practice (Carr & Kemmis, 1986). It is proposed that if schools and universities worked together, students' educational outcomes would be enhanced because lecturers and teachers could learn (through critical reflection on theoretical and practical notions) from each other. Both groups of educationalists (teachers and lecturers) would therefore improve their pedagogical fitness (Van Manen, 1991) resulting in more successful educational outcomes for students.

Specifically, it is a recommendation of this study that non-state schools seek partnerships with universities as a means of instilling in university-bound students the motivation and acceptance of the requirement to work independently and learn time management techniques. This contention is supported by the possibility, indeed the probability, that the research findings from this study were influenced by the independent/private nature of the participating school.

It is a supposition of this researcher that students from non-states schools are more at risk of developing poor independent work and time management skills than their state school counterparts due to the differing cultures apparent within these separate schooling systems. The culture (within some non-state schools) is one of greater pressure felt by teachers to uphold the reputation of the school by focusing on students obtaining good marks rather than allowing students the independence and freedom to work things out for themselves even if it means allowing students to fail. This notion was alluded to in the responses of some of the teacher participants in this study (refer to *Teachers' voice*, section, pp. 78-80) and is supported by research conducted by Brown (1993); Dunn, (1982); Hughes, Lauder & Stradee, (1991); and West, (1985), which clearly demonstrates that state school students outperform their non-state school counterparts in the first-year of university.

In summary, when relating the findings of the present study to a broader context, it may be argued that university-bound Year 12 students are under-prepared for university study. This paper has provided support for the current path of converging vocational and general education as long as it is done in a manner that does not devalue and segregate particular ways of knowing. Recent proposals suggesting the inclusion of vocational education subjects when

considering university entrance will, it is argued, ultimately result in improved life chances for all young Australians.

It has also been contended in this paper that closer collaboration between schools and universities would allow for a clearer and shared understanding of the educational goals of each institution thereby creating at least one post-school "seamless" pathway. Removing the present "seams" that exist between school and university transition would involve an empowerment of university-bound school students with a broad range of skills necessary to navigate university education as opposed to merely the skills required to meet Tertiary Entrance requirements. Senior secondary education that is emancipatory and empowering would result in the removal of the "fundamental flaw" in the transition from school to university.

Postscript:

The University in this study has recently linked the areas of attrition and the transition from school-to-university. A review of issues relating to this is currently underway with new initiatives being trialled.

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