

## What were they thinking? Motivations of at-risk students

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### Abstract

A student is formally classified as *at-risk* when they fail to meet minimum standards of academic performance. The consequence is exclusion unless performance improves. Our exploratory study seeks to classify the demographics of at-risk students and compare these with personal values, drawn out through in-depth interviews, as influencers of student performance and at-risk status.

We also consider engagement with the at-risk process as a possible explanation of and future at-risk status. The sample comprises an Australian University operating two multi-cultural campuses in two different countries, Australia and Singapore. The results of such research can have a significant impact on the development of pastoral care and intervention programs to assist students better achieve their learning goals and meet graduation goals for tertiary institutions.

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### Introduction

Globally, a reduction in government funding has resulted in many universities charging full-fee places for postgraduate and undergraduate study. Such measures are coupled with an increasingly competitive higher education industry with multiple options for students, larger class sizes, student diversity, and workload pressures on academics and teaching staff (Dobele and Rundle-Thiele, 2015, Dobele and Rundle-Thiele, 2016). Increasing competition, workload pressures, changes in student cohorts and the focus on fee-paying students has resulted in higher education institutions tailoring their operations into a more business-like service with an increased focus on meeting or even exceeding the needs of students (Gruber et al., 2010). Students are increasingly seen as customers (Saunders, 2014) whose satisfaction with the provider becomes increasingly important to institutions wanting to retain students and recruit new ones (Helgesen and Nettet, 2007).

The criteria that prospective students use to make their selection between universities assumes much importance (Kopanidis and Shaw, 2014) and, hopefully, lead to a fit between institution and student. However, between forty and fifty percent of enrolled university students will not obtain a degree (Long et al., 2006). This high rate of attrition is of concern to universities because if they are to remain globally competitive and ensure sustainability (Kopanidis and Shaw, 2014). In an increasingly competitive and dynamic tertiary landscape student retention (and therefore attrition) is critical to universities. Past research has shown that the recruitment of new students is more expensive than the retention of existing students (Joseph et al., 2005).

In Australia, twenty percent of domestic students and ten percent of international students who begin tertiary studies do not proceed to their second year (DEEWR, 2009). Further, previous research has shown a connection between unsatisfactory academic performance and likelihood of a student abandoning a course (e.g. Araque et al., 2009, Dobele et al., 2011).

### Demographic characteristics and student performance

Student demographic and socio-demographic characteristics, including values, have previously been used as possible explanations for student behaviour (e.g. Araque et al., 2009, Belloc et al., 2009). For example, gender imbalances across fields of study can play a significant role when considering attitudes towards university study. In particular, as female students demonstrate more academic orientation,

commitment and satisfaction with their study than their male counterparts (Krause et al., 2005). However, male students are less likely to drop out of university (Belloc et al., 2009). Age can also influence student behaviour, with mature aged students (aged 21 years or over) more likely to set clear directional goals and be driven more by intrinsic motives (Krause et al., 2005).

Ethnicity and country of birth are demographic factors that have also been shown to offer possible explanations for student behaviour (Dawes and Brown, 2002) and as potential factors influencing choice (Goyette and Mullen, 2006) and performance (Dobson et al., 1998, DEST, 2004). For example, students who study in their home country are more likely to drop out of university than international students (Belloc et al., 2009, DEST, 2004). Previous education may also explain at-risk status, with the more time students have between finishing high school (or equivalent) and taking up tertiary studies, the less likely they are to drop out (Belloc et al., 2009). Finally, study load, either full- or part-time, is also considered as a potential cause of at-risk status, with part-time students more likely to be aware of the need for time management and organisation (MacCann et al., 2012).

### Values

Values serve to guide people's actions, attitudes, judgments and comparisons across specific objects and situations and provide potentially powerful explanations of human behaviour (Daghous et al., 1999, Long and Schiffman, 2000, Kropp et al., 2005). In student behaviours, values may help to explain why some students seek assistance upon being classified as at-risk or have an impact on willingness to drive a student to complete their academic studies.

Overall, values can be complicated because the concept is elusive and difficult to measure (Dobele and Lindgreen, 2011). Values can be internal, meaning that an individual will be more self-motivated. Such individuals believe they can influence or control outcomes and, therefore, do not rely on the judgments or opinions of others. In fact, these individuals do not rely on external indicators or validation. By contrast, individuals that are less self-motivated will seek external validation and require the presence, judgments, or opinions of others to determine solutions to problems (e.g. Kropp et al., 2005).

### Methodology

Students are classified as "at-risk - first stage" in the first instance in which their academic progress is unsatisfactory. If unsatisfactory performance continued, the student is then classified as "at-risk - final stage" and may face exclusion from their degree program. Students are notified of their at-risk status via email and are invited to attend a non-compulsory interview with an academic advisor.

Over the period of this research project, the single largest cohort of at-risk students occurred in Semester 1, 2010. The total at-risk cohort comprised 12 percent of the study body (15% of the study body located at the Australian campus and 11% at the Singapore campus). The cohort comprises students studying either marketing or economics and finance major as part of an undergraduate Bachelor of Business program (Table 1). The majority (67%) of at-risk students were the first stage.

Campus	Program	At-risk Students			All Enrolments		
		Gender		Total	Gender		Total
		Male	Female		Male	Female	
Australia	B Bus (Marketing)	70	64	134	305	454	759
	B Bus (Econ & Fin)	57	29	86	414	284	698
<b>Total</b>		<b>127</b>	<b>93</b>	<b>220</b>	<b>719</b>	<b>738</b>	<b>1457</b>
Singapore	B Bus (Marketing)	34	67	101	310	618	928
	B Bus (Econ & Fin)	76	59	135	697	590	1287
<b>Total</b>		<b>110</b>	<b>126</b>	<b>236</b>	<b>1007</b>	<b>1208</b>	<b>2215</b>
	B Bus (Marketing)	104	131	235	615	1072	1687
	B Bus (Econ & Fin)	133	88	221	1111	874	1985
<b>Total</b>		<b>237</b>	<b>219</b>	<b>456</b>	<b>1726</b>	<b>1946</b>	<b>3672</b>

% Australia At-risk compared with total enrolments 15.10

% Singapore at-risk compared with total enrolments 10.65

% Overall At-risk compared with total enrolments 12.42

Both campuses marketing at-risk compared with total enrolments 13.93

Both campuses eco/fin at-risk compared with total enrolments 11.13

**Table 1: Comparison of At-risk Students and the total enrolments by program**

The case-study method utilised in this study is considered advantageous as it employs multiple sources of evidence (Yin, 2009). Student demographic details employed in this study (such as gender and age) were sourced from online enrolment data, while the at-risk data was sourced from the academic records of students and APIP documentation. In-depth interviews were conducted with 16 percent of the at-risk cohort (76 students), the small sample size allowing for focussed survey questioning, and is justified in the context of this exploratory research (Ploutz-Snyder et al., 2014).

### Results – demographic characteristics

Gender has no significant impact on at-risk status. There is a significant link between age and at-risk status, as for the whole at-risk cohort a significantly higher number of students were mature age (32% of at-risk students were school age, compared to 68% being mature age) ( $\chi^2(1, N=456) = 7.044, p < 0.05$ ). The majority of both first stage (65%) and final stage (58%) at-risk students were domestic but residency status that is whether a domestic or international was not found to be significant in influencing at-risk status. Previous education is found to be significant, with only a small proportion of at-risk students (4%) in the sample having previous university qualifications ( $\chi^2(1, N=456) = 19.301, p = 0.000, p < 0.05$ ). Load is also found to significantly affect at-risk status, with 63 percent of the Economics and Finance at-risk cohort and 88 percent of the Marketing at-risk cohort being enrolled full-time  $\chi^2(1, N=456) = 5.272, p < 0.01$ . Load is also found to be significant for the at-risk students enrolled at the Singapore campus as almost two thirds (65%) of the Singapore based at-risk students enrolled full-time, and with 88 percent of the marketing at-risk students enrolled full-time ( $\chi^2(1, N=456) = 5.149, p < 0.01$ ).

### Results – values

We classified at-risk students who responded to the email and either attended an interview or submitted the relevant paperwork, as engaged and compared those with the students who did not engage. Overall, the majority of at-risk students (83%) chose not to engage with the at-risk process (either virtually or in person). The results of the regression analysis indicate that engagement with the non-compulsory at-risk process was highly significant ( $\chi^2(1, N=456) = 32.157, p = 0.000, p < 0.01$ ). Interestingly, of the students who *did* engage with the at-risk process, 58% were at-risk again in the very next semester, suggesting that the intervention is not effective in arresting further decline.

Further exploration of values was undertaken through analysis of the reasons given by interviewed at-risk students to account for their poor academic performance. For example, intrinsically motivated students would internalise explanations while extrinsically motivated students look to others to blame. There was no limit on the number of reasons the students could list, and the responses were coded into four main categories: Personal Relationships, Medical, Employment and Education (Table 2).

Primary Reason	Subcategories	Explanation
Personal relationships	Student's relationships	Breakups or other trauma involving student and their spouse
Medical	Student or someone known to them	Health or well-being issues associated with either student or someone known to them
Employment	Paid work	Taking time from studies through casual, part- or full-time employment
Education	Learning and Teaching (first time at-risk = 33%, at-risk again = 24%)	Writing or language problems, comprehension difficulties with program, coursework or topics, lack of attention directed at studies or in classes and poor time management/organisations skills for studying
	Examinations	Poor preparation or exam stress or nerves
	Adjustment Problems	Transitioning issues while attempting to settle into their roles as university
	Someone else's fault	Suggestion that the University or lecturer was to blame, (inadequate instruction from a lecturer, lecturer spoke too fast, being unhelpful or unavailable), not provided with enough resources, unclear assessment information, insufficient time allocated for assessment, assessment marked incorrectly, timetable clashes

**Table 2 Coding from students' reasons for their poor academic performance**

The majority of at-risk students (33% of first time at-risk students and 24% of the at-risk final stage students) gave learning and teaching as their first mentioned reason to account for their poor academic performance, followed by adjustment problems (Table 3). Learning and teaching explanations included problems with course material as opposed to directly blaming teaching or administrative staff (categorised as a separate field). Transitioning issues cited were typically about difficulty adjusting to the differences students felt between previous educational experiences and undergraduate university. Examination-related issues also featured, including stress and anxiety over exams as well as misreading or misunderstanding examination questions.

<b>Reasons Given to Account for Poor Academic performance</b>	<b>First time at-risk</b>	<b>%</b>
<b>First mentioned Reasons</b>		
Education - L&T	10	33.33
Education - Transitioning issues	8	26.67
Education - Exams	3	10.00
Education - Someone else is to blame	3	10.00
Personal Relationships	2	6.67
Medical - Self	2	6.67
Medical - Other	2	6.67
<b>Total</b>	<b>30</b>	<b>100</b>
<b>Reasons Given to Account for Poor Academic Performance</b>	<b>At-risk Again</b>	<b>%</b>
<b>First mentioned Reasons</b>		
Education - L&T	11	23.91
Education - Transitioning issues	9	19.57
Employment - Self	7	15.22
Medical - Self	4	8.70
Medical - Other	4	8.70
Education - Exams	4	8.70
Personal Relationships	3	6.52
No reason was given	2	4.35
Education - Someone else is to blame	2	4.35
<b>Total</b>	<b>46</b>	<b>100.00</b>

**Table 3: Reasons given by at-risk students**

### Implications and Conclusions

Age, study load and previous education are highlighted as significant in the study. Further research could determine the multicollinearity of these variables as it could be that younger students are more likely to study full time and not have previous university experience in comparison to older students. It is concerning that mature age students are more than twice as likely to be at-risk. This finding is potentially inconsistent with past research which showed that the more time students have between finishing high school (or the equivalent) and taking up tertiary studies, the less likely they are to drop out (Belloc et al., 2009). We suggest that mature age students may struggle to adjust to returning to study.

Although there is a difference between being at risk and dropping out, at risk status can be a precursor to withdrawing or being expelled. One possible explanation for this finding in respect of mature-age students could be that school-age at-risk students have been more recently exposed to a learning and studying environment and this gives them an advantage when approaching their studies, thus reducing the possibility of them being at-risk.

At first glance, students who suggested learning and teaching related issues to account for their poor performance appear to be taking responsibility for their own learning, however, an extension of this

research is required to more fully define the internalisations versus externalisations. Examples could include problems with the course material resulting from not purchasing the textbook, being underprepared or lacking pre-requisite subjects or from the syllabus that is not consistent with learning objectives, is confusing or poorly structured for the learning period.

Regression analysis considered the demographic characteristics as influencers of engagement in the at-risk process and found campus to be a statistically significant variable, with at-risk students based at the Singapore campus more likely to engage in the at-risk process as compared with Australian-based students. However, despite this engagement, they are far more likely to be at-risk again in subsequent semesters. Cultural factors could be at play here regarding engagement with the at-risk process. Further research could also more clearly define the reasons for students engaging compared with reasons for working through at-risk status alone.

A student's decision not to engage with the at-risk process could be based on internal motivations, a desire to work through their academic problems or issues themselves, rather than seeking external assistance. Future research could consider alternative indicators of motivation, such as the initial motivation to study, levels of drive, self-efficacy or personality drivers that may help explain at-risk status and engagement in the process. Additionally, self-benefit and risk reduction strategies could also be considered. Academic variables, including grade point average, number and types of courses failed (e.g. those related to a student's major compared with elective subjects or those outside of the major), first year versus advanced level), and student progression (from first to final year) could be considered. Refinements along these lines could result in a more accurate guide to at-risk behaviour. Modelling these factors could aid in deriving estimates of the odds ratios for each factor (Bean and Metzner, 1985) to explain, for example, how much more likely some student cohorts are to engage with the at-risk process and how best to help both cohorts as a result of that understanding.

The results of this study highlight two important distinctions between the at-risk cohorts that warrant further attention. First, between those that engage and those that do not, and the impact of engagement on subsequent at-risk status. Our study has found that those at-risk students who engage with the process are more likely to progress to at-risk - final stage. A possible explanation for choosing not to engage in the at-risk process could be that the notification of at-risk status is sufficient to motivate or 'reprimand' the student (although perhaps not enough to change their behaviours given the high number of student's at-risk again in the next semester).

Further research is required to ascertain students' responses to the notification email and to align that response with their subsequent behaviour (e.g. class attendance, accessing online material, utilisation of support programs, purchase of course materials). Within this monitoring, the associated at-risk process paperwork could be considered. One of the aspects of the at-risk process is for the academic advisor to recommend assistance programs for the student. Programs include study and examination training, drop-in centres for mathematics assistance or counselling. As the process currently stands, there is no follow-up to ensure that students engage with these services. Future research could consider if utilising the recommended services has any significant impact on subsequent academic performance.

Finally, future research could consider the overall buy-in of the student into the at-risk process regarding commitment indicators for improving their performance. For those that attended the interview: did these students understand why they were at-risk; and did they have a program or plan for subsequent semesters? It may be possible that students who are at-risk - final stage have weaker education strategies or lower levels of persistence to achieve their goals, as compared to at-risk - first stage students and these factors could explain why these students perform poorly in subsequent semesters. When the at-risk students were asked to give reasons for their poor academic performance, the most common first mentioned reasons for both at-risk - first stage and at-risk - final stage students concerned learning and teaching issues. However, first stage only students do something which prevents them from being at risk - final stage.

Regarding the reasons given by students, two caveats are noted. Firstly, the document requires personal information of the student, such as their student number and name. The last page of the document requires a signature of the student and academic advisor and is considered an agreement that the student will undertake to improve their performance. Thus, while a relatively low percentage of

students blamed the institution and its staff for their lack of academic progress, it is possible that students feared repercussions from the university if the reasons they were to provide were critical of the institution. Second, three questions are raised about the reasons offered by students. Firstly, are students simply offering reasons until there is no space left in that section of the document, which may explain why there were never more than three reasons. Second, is there a weight or importance level to these reasons, are the first mentioned reasons the most important or does the student need to build up to the most important reason and offers the previous reasons as a form of courage builder, or it provides breathing space or thinking time. Finally, the reasons may be an attempt to elicit sympathy from the academic advisor, save face or escape from the interview as quickly as possible.

Closer examination of the motivations behind the reasons has serious managerial implications. There is the need to ensure that at-risk students are offered an opportunity for a truthful self-assessment of the actions and behaviours that have led to their status, and, secondly, are made comfortable enough to truthfully provide that information in the at-risk process. Without these considerations in place students will find it difficult to improve their academic performance in subsequent semesters and it will be more to implement university support programs to aid students in achieving their academic goals. Further work is also needed in terms of engagement with, and the efficacy, of support services in the plan for future research.

The findings of this study should be understood within the limitations of the research, these being the reliance on students' provision of explanations for, and memory of previous events leading to, their poor academic performance; the small sample size; and the use of the case study methodology. Finally, the research is limited to a single semester, which allowed for a deeper focus on the at-risk cohort studied, but future research could consider a longitudinal study in order to investigate at-risk students' persistence in the face of difficulties, and the lessons learned from those that are at-risk - first stage only and are then able to go on and complete their studies.

Overall, our research contributes to the literature on student success and performance. The study provides a starting point for students, teachers and administrators who are grappling with the increasingly important issue of student performance, retention and on-time graduation in an increasingly competitive marketplace.

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