

# Feeling prepared for university? Perceived preparedness and expectations of prospective students

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*What do we know about students' perceived preparedness before their start at university? The University of Groningen (The Netherlands) and the University of Otago (New Zealand) have been working together to develop an instrument to gain a better understanding of first-year students' expectations and self-perceived readiness. This instrument, the Readiness and Expectations Questionnaire (REQ) was trialled in Groningen at the start of the 2006 academic year. Initial analysis of the results suggests that more than half of the students felt well prepared for university by their secondary education. A high correlation between expectations about independent study and expectations about university study suggest that many students had an adequate idea about university. Students who felt better prepared by secondary education also indicated they felt more able to perform different tasks. The development of the REQ as a valid instrument will continue through an iterative process of refinement as a consequence of data and statistical analyses, as well as repeat use of the questionnaire at both institutions.*

## Introduction

Student retention and enhancement of students' experience in the first year seems a concern to higher education institutions all over the world. In the United States (Tinto, undated), almost half of the students in a four-year degree program do not graduate. In the Netherlands the completion rate for students enrolled in four or five year programs is approximately 50% (Werkgroep rendementen, 2005). For New Zealand, the completion rate for students enrolled in Bachelors programmes is close to 50% (Scott & Smart, 2005). Although Long, Ferrier and Heagney (2006) report that student attrition is much lower when movements from one university to another are taken into account, the relative low completion rates are still a matter of concern. In all countries mentioned above, a majority of the students dropped out during or just after their first year of study. At the University of Groningen as well as the University of Otago the attrition rate in the first year is about 17%.

In Australasia, an increase of research activities into retention and the first-year experience seemed to have started with a study commissioned by the Committee for the Advancement of University Teaching, carried out by McInnis and James in 1995. In the wake of this study, the first "Pacific Rim – First Year in Higher Education" conference took place. McInnis, James, and their associates have since undertaken two further Australia-wide studies at five-year intervals, which established some main trends in the experience of first-year students (Krause, Hartley, James, & McInnis, 2005; McInnis & James, 1995a; McInnis, James, & Hartley,

2000). Many papers have since been published on first-year issues, particularly originating from the yearly "Pacific Rim – First Year in Higher Education" conferences. Most New Zealand contributions to the research on transition and retention issues, too, originated from these conferences (see e.g. Ditcher & Hunter, 2002; Purnell, 2002; van der Meer, 2004). Recently some reports have been published on the issues for Pasifika students (Anae et al, 2002; Coxon et al, 2002). However, Prebble et al. (2004), in their research synthesis on the impact on student support services, emphasise the relative paucity of New Zealand research in this area.

In the Netherlands, the focus of the last few decades has been on the time students need to complete their degree. Students in Dutch universities have to sit an exam at the end of their first year. This gains them a "propaedeuse" diploma. This first year consists for all undergraduate students of a domain specific programme of compulsory modules that has to be successfully completed in order to succeed in this examination. In most field of studies students have to gain at least 75% of their first year credits in order to progress to the second year. Studying students' success in the first year, therefore, seemed a logical place to start investigation into student completion (see for example Beekhoven, 2002; Jansen, 1996; 2004; 2005, Jansen & Bruinsma, 2005; Suhre, Jansen & Harskamp, 2006; Van der Hulst & Jansen, 2002, Van den Berg & Hofman, 2005). Jansen (2005) found the time students needed to succeed in their first-year examination was the variable that showed the greatest effect on the time it took student to complete their degree. The large effect size (.50 standardized) suggests that first-year students' preparedness and experience of their learning environment is an important focus for study.

Many studies focus on factors that contribute to student retention within a given country context. Although contextual differences between countries - for example, in terms of student financial support, institutional funding, tertiary education access, student characteristics, course organisation and so on - make comparisons between countries problematic, retention issues also show significant similarities between countries (Yorke & Longden, 2004). Studying student retention between different countries could also put certain factors in perspective that are being advanced as contributing issues, such as high school preparation.

The school systems in The Netherlands and New Zealand are markedly different. The Netherlands has a differentiated high school system with students post primary entering one of three possible types of high schools. The majority of first-year students at Dutch universities enter by means of an entrance qualification gained through passing exams in specific high schools that are geared at preparing students for university studies. At the University of Groningen more than 80% of all first-year undergraduate students enter with this entrance qualification. Another 10 % of the enrolling students have completed the first year at a university for professional education with a diploma, or have a bachelor degree from a university of professional education. Of the remaining students, between 5 and 10 % have an international diploma, or have passed a specific test for students who are 25 years or older.

In New Zealand, high schools are not differentiated. Many subjects at higher level, however, do include tasks and projects that could be considered as providing preparation for further studies at university level. Students under 20 qualify for university entry through gaining a minimum set of credits across various discipline areas, and across different levels. Different from the Netherlands, however, 'open entry', i.e. irrespective of qualification, is provided to domestic students who are 20 or over. At the University of Otago, typically between 75 and 78% of first-year students are aged under 20 and gain entry through their New Zealand high

school qualification, or comparable overseas qualification. Attributing student first-year attrition, then, to high school preparation may not always provide a convenient answer. Arguably in a country like the Netherlands, with highly specialised university preparation high schools, one would expect better prepared university student. However, this is not necessarily the case. The first-year attrition rate between the University of Groningen and the University of Otago, for example, is broadly within a three to four percent difference. Preparedness does not point only at domain specific knowledge or generic skills but also at an adequate understanding of what studying at university will be like.

There is a growing body of literature that suggests that first-year students are not always clear what is expected of them, and that teachers may not understand what first-year students expect to happen when they come to university (Pitkethly & Prosser, 2001; Waters, 2003). This is especially the case with regard to skills that students are supposed to come to university with, such as, for example, academic writing skills. A greater understanding of what expectations students have of university studies, therefore, may prompt teachers to consider their approach to first-year students. Courses and modules can be designed in a way that fit in with students initial expectations, which may then contribute to students' satisfaction or academic success, and ultimately to their decision to stay.

A project was designed, therefore, to gain a greater understanding about students' expectations and perceived readiness. In this paper we discuss the following research questions:

- Do students feel themselves well prepared when they enrol for university?
- What are their expectations of university type of studying, time management, and possibilities to get help?
- What is their perception of being ready with regard to ability, writing, information processing, and of being prepared for university demands?
- Is there a difference between their perceived readiness and expectations?

## **Research design**

Many of the studies on first-year retention collected data on the student experience by questioning students who dropped out during their first year, or at the end of their first year. In his research on early leavers, Yorke (1999), for example, identified six factors that can be considered as influencing non-completion; these included poor quality of experience, inability to cope with course demands, and poor choice of programmes. These factors, however, were determined in retrospect. In order to gain an insight into the expectations and self-reported readiness of first-year students, this project is aimed at the development of a Readiness and Expectations Questionnaire (REQ). The project elaborates on a PhD research at the University of Otago, where first-year students' perceptions of the teaching/learning environment were investigated by interviewing students who volunteered prior to arrival at university (van der Meer, 2006). One of the findings was that students often have little understanding of what was expected of them.

Based on the literature, the Otago project (van der Meer, 2006), and experiences at both the University of Otago and the University of Groningen, we developed this first version of the REQ.

The first version of the questionnaire consisted of six parts:

- Questions about study choice;

- General questions about degree and degree completion expectations, and general sense of preparedness by their secondary education;
- Statements around expectations of the first year at university. These items were rated on a Likert scale from 1 (not sure) to 5 (quite sure). Topics in this part of the questionnaire deal with induction, help-seeking, time management, IT skills, independence, understanding of university type studying and (dis) similarities with secondary education;
- Questions regarding the time students expected to spent on study activities at the university, self-study, and employment;
- Statements around readiness to commence university studies. These items were also rated on a Likert scale from 1 (disagree) to 5 (agree). In this part, issues were addressed such as ability and time management, preparedness for university study, university culture, writing skills, IT skills, information processing, and help-seeking.
- Student characteristics such as student registration number, gender, age, pre-university education, and study finance position.

The questionnaire was administered to students who enrolled at the University of Groningen in the period from July until the middle of September 2006. Until the end of August the questionnaire was in paper form; after that, the students could only fill in the questionnaire on-line. Students were invited to indicate if they were willing to participate in interviews or a focus group at some point during the first year. It is anticipated that a second version of the REQ will be administered at the University of Otago in February 2007.

In this paper, we will report on the first part of the research at the University of Groningen. At the conference, some results from the University of Otago will also be presented.

## **Results**

In this section we will report on the response rate and student characteristics. We will then present the results and analysis of the Expectation and Readiness items. Finally, we will describe the similarities and differences between these two sets of items and differences in relation to students' general feeling of being prepared for university

### *Descriptive statistics on the response*

The paper questionnaire was sent to 2,500 prospective students; 1,112 students returned their questionnaire (response 45%). Another 1,657 students were sent the link to the online questionnaire. The response rate and the quality of the responses to the online questionnaire were as expected much lower: only 406 students filled in the questionnaire and 85 students were removed from the online data file because they did not fill in both the readiness and expectations items. Another 42 respondents who did not fill in their student registration number were also removed from the dataset. The registration number is needed for further analyses with, for example, academic progression data. Most of the respondents were under 20 years of age (79%), female (64%), and had a pre-university secondary school diploma (83%). All the faculties are proportionally represented.

About 60% of the students indicated that they felt adequately prepared by their secondary education for the university, 27% answered 'don't know' and 13 % said 'no'. In other words, 60% of the students felt confident when they started their university studies .

### *Expectations and readiness: reliability analyses*

The group of students who sent in their questionnaire before 1 September was considered to be more 'pure' new students. These students were assumed not to have had contact with other students in the context of the general induction activities, or faculty specific induction activities. It was decided, therefore, to use the data from this group in the reliability analyses of the expectation and readiness items in order to define the various scales on the different aspects we expected to be of importance in the field of expectations and readiness.

The analyses revealed a number of scales with a fair to sufficient reliability coefficient (Cronbach's alpha varied between .60 and .80). In this paper we will focus on students' expectations on being good in time management, help-seeking, independent study, and university study. Furthermore, we looked at students' sense of preparedness with regard to self-perceived abilities, writing, preparedness, and information processing. Table 1 shows the scale characteristics. The appendix gives examples of items for the scales.

**Table 1: scale characteristics**

	Number of items	Cronbach's alpha	mean	Min-max
<b>Expectations</b>				
Time management	5	.68	3.34	1.2 – 5.0
Help-seeking	3	.74	3.01	1.0 – 5.0
Independent study	5	.63	3.77	1.7 – 5.0
University study	6	.60	3.72	1.7 – 5.0
<b>Readiness</b>				
Abilities	8	.75	3.68	1.1 – 5.0
Preparedness	8	.72	3.21	1.4 – 5.0
Writing	5	.72	3.65	1.0 – 5.0
Information processing	4	.72	3.63	1.0 – 5.0

Correlational analysis between the expectation scales shows that there is a significant and reasonable correlation between help-seeking and time management as well as between students' expectations of what university study will be like, and expectations around having to be independent (see Table 2). Students who expected to have adequate time-management abilities also expected to be able to find help when needed. The high correlation between expectations about independent study and expectations about university study suggest an adequate idea about university.

The four readiness scales correlate all rather highly with each other, indicating a strong connection between students' perceptions about their abilities, preparation by secondary school, their writing abilities and information processing abilities. Table 2 shows the correlations between the expectation and readiness scales.

**Table 2: Correlations expectations and readiness scales**

	E_time	E_help	E_indst	E_unistu	R_abili	R_prep	R_write
E_help	.23**						
E_indst	.03	-.05*					
E_unistu	.06*	.07*	.87**				
R_abili	.45**	.08*	.23**	.21**			
R_prep	.38**	.20**	.13**	.14**	.64**		
R_write	.33**	.13**	.20**	.20**	.66**	.75**	
R_infpro	.30**	.12**	.18**	.16**	.73**	.52**	.58**

\* significant at .01 level      \*\* significant at .001 level

E: Expectation    help: help-seeking    indst: independent study    unistu: university study  
R: Readiness    abili: ability    prep: preparedness    write: writing    infpro: information processing

An Anova analysis was carried out between the expectation and readiness scales and the response to the question whether students felt adequately prepared by their secondary education. This analysis suggests significant differences between the three groups of students (who responded "yes", "no" and "don't know" respectively) on six of the eight scales. The mean scores for the three groups are shown in Table 3.

**Table 3: mean scale scores students who feel well-prepared, ill-prepared or who don't know**

Scale		Mean
R_ability	Well-prepared	3.79
	Ill-prepared	3.39
	Don't know	3.56
R_preparedness	Well-prepared	3.37
	Ill-prepared	2.78
	Don't know	3.05
R_writing	Well-prepared	3.76
	Ill-prepared	3.33
	Don't know	3.55
R_infprocessing	Well-prepared	3.72
	Ill-prepared	3.41
	Don't know	3.52
E_time	Well-prepared	3.43
	Ill-prepared	3.05
	Don't know	3.26
E_help	Well-prepared	3.05
	Ill-prepared	2.79
	Don't know	3.01
E_independent study	Well-prepared	3.78
	Ill-prepared	3.77
	Don't know	3.74
E_university study	Well-prepared	3.73
	Ill-prepared	3.65
	Don't know	3.71

There were no differences on two expectation scales, namely independent study and university study. All three groups of students, those who felt well-prepared, ill-prepared or uncertain, seemed clear that they had to be independent in their study habits, and were clear about what university study would be like.

However, differences between the three groups were found on all the readiness scales. Students who indicated that they felt well-prepared by secondary education, perceived themselves to be more capable and more confident on writing tasks as well as on information processing activities. Furthermore, they expected that they would be good at managing their time and accessing help when needed.

## **Conclusion and discussion**

Institutions all over the world face the problems of drop-out and study delay. It is generally agreed that the first-year experience is one of the most important factors in the explanation of attrition. Most research on this first year experience in which students participate by interviews or surveys is done during or at the end of the first year. Our project is aimed at getting more insight in the expectations and feelings of preparedness of first-year students before they start their studies.

In this paper we focussed on a limited number of aspects of expectations and readiness. More than half of the students reported feeling well prepared for university by secondary education. These students seemed to expect that they would be capable in managing their time and that they would be confident seeking help. They were also confident with their information processing qualities and writing abilities. Students' expectations about what university studies would be like indicated that they were realistic about needing to exercise a great degree of independence in their approach to their studies.

It is expected that students who do not feel well prepared for university will be at greater risk of withdrawing. Bandura and Locke (2003), for example, showed a relation between perceived self-efficacy and motivation and performance attainment. This social cognitive theory points at self-regulation of people in an anticipative and purposive manner. Furthermore, research on students who dropped out suggests some factors that can be important in students' decisions. Often students mentioned as decisive factors: problems with adjustment to the university, inability to cope with the programme demands, and uncertainty about what was expected (McInnis & James, 2004; Waters, 2004; Yorke, 2002). It could be important for teaching staff, course designers as well as university management, therefore, to know how well students feel prepared before coming to university.

The results from this initial research into readiness and expectations seem to indicate that students are realistic about their expectations of university studies in general prior to coming to university. Subsequent problems first-year students may have with understanding course expectations (see e.g. Haggis, 2004; Lawrence, 2002; Lea & Street, 2000; van der Meer, 2006), then, may have less to do with students' ill-conceived expectations. Instead, it may be important for teachers to consider how they communicate their expectations for their specific course or discipline.

A second phase of this project will be to relate students' academic results with their self-reported assessment of readiness and their expectations of university studies. This may provide some indication of how useful the results from the REQ could be to identify at risk

students. Students' academic results will be available by the middle of June. Some of the findings of the second phase of the project will be shared at the conference.

It is clear that some scales can be improved. In the second version of the REQ that will be used at the University of Otago, some changes in the formulations of the items have been made. The predictive validity (predictions of academic performance) will be an important focus in the further development of the REQ through an iterative process of refinement as a consequence of data and statistical analyses, as well as repeat use of the questionnaire at both institutions.

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## **Appendix**

Examples scale items

### ***Expectancy***

#### **E timemanagement alpha = .68**

I expect to be able to establish priorities in my study tasks

I expect to keep up with all the different assignments and tasks

#### **E\_help alpha = .74**

I expect it will be easy to get help from teacher when I don't understand something

I expect it will be easy to get help from staff in my hall of residence

#### **E independence alpha = .63**

I expect that I will have make connections between lectures notes, text books and other information related to a course

I expect to have to do organise my study all on my own

#### **E universitystudy alpha = .60**

I expect that I will have to do a lot of written assignments at university

I expect that I often have to work on different assignments at the same time related to a course

### ***Readiness***

#### **R ability alpha = .75**

I am good at meeting dead lines

I am good at working independently

#### **R infoproccessing alpha = .79**

I find it easy to write down the main points from a book or text

I am confident finding an author's arguments in reading a text

#### **R\_experience alpha= .72**

I have been taught how to write essays

I have been taught well how to work in small groups

#### **Rwriting alpha = .72**

I find it easy to listen and make notes at the same time

I am confident at writing essays