Academic and social integration in three first-year groups: A holistic perspective

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Abstract

The academic and social integration of ‘new’ students in higher education settings seems crucial for study commitment, study success and preventing early student departure. It has been well documented that the level of student integration has a major influence on both the commitment of students to their studies and the contribution towards study success. Moreover, authors have pointed to the close relationship between first-year integration and student motivation. There is, however, a complex relationship among personal, academic and social factors (Terenzini et al. 1996) that makes any simplified explanation of student persistence and study success problematic, proving a holistic perspective valuable.

The article compares findings from a three-tiered survey for the three first-year groups at one university and discusses their implications for student integration and potential study success against a framework provided by Louw (2005) and others. It points to the potential value of such surveys for feedback in terms of projected study success, lecturers’ teaching and support strategies as well as the support roles of academic services.

INTRODUCTION

A recent study on student pathways in South Africa by the Human Sciences Research Council (University World News 2008) revealed that a shocking 40 per cent students drop out of university in their first year of study. The factors found to be contributing to this state of affairs are manifold, but financial difficulties experienced by first-generation students from low-income, less educated families were found to most likely lead to drop out. Another study on first-year student dropout at four South African higher education institutions was conducted by Louw (2005). His study pointed to a number of crucial factors that contribute to first-year students’ alienation and their leaving of higher education without achieving much – at least not academically. This qualitative study made extensive use of Tinto’s (1975; 1993) student integration model as an interpretative framework and ultimately presented a holistic framework for first-year student support at institutions for agricultural studies. Louw’s framework is ‘holistic’ in the sense that a broad view was taken of student development in an attempt to ac-
count for a wide range of factors that potentially contribute to students’ drop-out or departure decisions.

The successful academic and social integration of ‘new’ students in higher education settings remains important with regard to study commitment, study success and preventing early student departure. Bean (1990), Tinto (1993) and Strauss and Volkwein (2004) have shown that the level of institutional and programmatic integration has a major influence on both student commitment and study success. Similarly, Jarvis, Holford and Griffin (1998) and Gibbs (1992) have pointed to the close relationship between student integration and motivation. The relationship among personal, academic and social factors however, remains complex (Terenzini, Springer, Pascarella and Nora 1995; Terenzini, Springer, Yeager, Pascarella and Nora 1996) and any simplified explanation of student persistence and study success is highly problematic (Rhodes and Nevill 2004). This limitation alone makes a holistic perspective such as Louw’s more useful than a particularistic view of any single set of factors. The term ‘holistic’ is taken here to mean, in accordance with Kember (1995), that student integration is the function of as wide a range as possible facets of a programme of study and elements of contact between an institution and its students, irrespective of whether these elements of contact are of an academic, an administrative or a social nature (also see Torres and Solberg 2001).

The study reported in this article has attempted an application of Louw’s framework by asking students enrolled in three first-year course units (or modules) at Stellenbosch University to respond to a range of 20 statements related to early first-year departure. The purpose was to establish whether there might be any indications of risk factors pointing towards support or intervention needs. Although student integration theory (SIT) prevailed in the study, critique on SIT (particularly Tinto’s 1975 version) was taken into account (McCubbin 2003). While some of these criticisms were addressed by Tinto and others in further empirical work (Tinto 1997; Mannan 2001), indications are that first-year students’ level of academic and social integration has a positive influence on integration levels in later years of undergraduate study (Downing 2005; Feldman, Smart and Ethington 2004; Krause, Hartley, James and McInnes 2005).

What is of particular interest in this reported study is the early feedback from first-year students about their course experiences. This issue was also highlighted by Strahm and Danaher (2005) who found that encouragement from course lecturers and peers, proper student planning and preparation are key factors in first-year students’ academic progress early in their study programmes. Two other instruments, the Alpha Baseline Questionnaire (or ABQ) implemented before the start of the first year of study and the Alpha Progress Questionnaire (or APQ) implemented towards the end of the first year, are currently in use at Stellenbosch University to determine first-year student perceptions on an array of important issues. These were reported on earlier (Bitzer 2003; Bitzer and Troskie-de Bruin 2004; Bitzer 2005) as the ABQ has a bearing on the study at hand.
THEORETICAL CONSIDERATIONS

Based on institutional research by Troskie-de Bruin (1999) as well as the seminal work of Tinto (1975; 1993), Thomas (2000) and others, Louw (2005) found at least eight indicators on the academic dimension that might potentially influence student departure decisions. These indicators are:

- Unclear study goals of students and related to this, lowered levels of motivation
- Unrealistic student perceptions on what higher education studies require
- Substantial gaps in students’ foundational and declarative knowledge
- Non-ability of students to adjust academically, mainly due to the difference between expectations at the schooling and higher education levels of study
- Perceived wrong programme choices, mainly related to poor information or weak student counselling
- Language difficulties, particularly in cases where the language of instruction was different from students’ home or school language
- The level of difficulty or complexity concerning course and learning materials
- Access granted to students who did not meet the required access requirements.

Indicators on the social dimension as contributing to students’ departure decisions are:

- Inadequate financial provision, accommodation and facilities
- Institutional information to students that was inadequate or were seen as inadequate
- Student involvement in ‘unhealthy’ social activities such as excessive drinking and ‘partying’
- Students’ inability to manage their time effectively and efficiently.

In view of these identified risk indicators Louw proposed a conceptual framework that pointed to three sets of factors that potentially contribute to early student departure (see Figure 1). Alternatively, appropriate student and institutional attention to these factors opened possibilities for limiting drop-out at colleges of agriculture.

<table>
<thead>
<tr>
<th>I. Student background factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-perception of competence</td>
</tr>
<tr>
<td>Historical experiences</td>
</tr>
<tr>
<td>School support</td>
</tr>
<tr>
<td>Academic support</td>
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<tr>
<td>Self-confidence</td>
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<tr>
<td>Learning style</td>
</tr>
<tr>
<td>Study skills</td>
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<tr>
<td>Options and choices</td>
</tr>
</tbody>
</table>
II. Student factors

<table>
<thead>
<tr>
<th>Academic</th>
<th>Social</th>
<th>Institutional factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Perceived low level of academic integration</td>
<td>- Perceived low level of social integration</td>
<td>- Inadequate learning support</td>
</tr>
<tr>
<td>- Learning backlogs</td>
<td>- Academic/social imbalance</td>
<td>- Inadequate language &amp; communication in classes</td>
</tr>
<tr>
<td>- Heavy workload</td>
<td>- Language difficulties</td>
<td>- Large classes</td>
</tr>
<tr>
<td>- Inadequate study skills</td>
<td>- Financial constraints</td>
<td>- Inadequate facilities</td>
</tr>
<tr>
<td>- Lacking foundational knowledge</td>
<td></td>
<td>- Inefficient administration</td>
</tr>
<tr>
<td>- Lack of commitment</td>
<td>- Lack of family support</td>
<td>- Skewed access measures</td>
</tr>
<tr>
<td>- Lack of confidence</td>
<td></td>
<td>- Inadequate teaching</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Type of assessment</td>
</tr>
</tbody>
</table>

(Source: Louw 2005)

**Figure 1:** Louw’s conceptual framework for student support at college

In order to apply Louw’s framework to the Stellenbosch University environment, an adapted model was proposed (see Figure 2) in order to account for possible factors that might point to first-year university drop-out. The framework as proposed by Louw did not prioritise any factors and was potentially attractive for three reasons: It has firm theoretical underpinnings, its application was in a similar South African geographical location and it took a holistic rather than a particularistic view of student drop-out and support. Because of practical considerations and since other instrumentation already captured such information at Stellenbosch University, student background factors were not included in the model.

**Figure 2:** Adapted model for first-year risk factors at Stellenbosch University
Although institutional factors overall play a major part in first-year student success (Parsons 1993; Walker and Badsha 1993; Cilliers and Sternberg 2001; Strahm and Danaher 2005) interest in this case was primarily directed at perceptions of institutional and student factors impacting at the programmatic/modular level of studies. The main research question was therefore how the risk factors within the dimensions as derived from Louw’s framework would be applicable to three different groups of students at Stellenbosch University. These students are in some respects similar to but also quite different from agricultural college students regarding aspects such as access requirements and programmatic focus. Three sub-questions concerning student participation in three unrelated first-year modules in three different faculties were therefore considered. The first was the question whether difference exists among factors as perceived by students in ‘high risk’ modules as compared to students in modules with ‘lower risk’. In other words: Is there a possible relationship between risk factors as perceived by students and the level of risk in a particular module (as judged by lecturers who teach in the module)? The second was: Are there any links between perceived risk factors and students’ mid-year academic performance marks? The final question was: In which respects might students’ pre-participation perceptions (as measured by the Alpha Baseline Questionnaire) be similar or dissimilar to mid-participation perceptions of risk factors (as measured by the instrument used, the First-year Experience Survey) in any particular module?

**METHOD**

**Design and sample**

The questionnaire survey included 579 first-year students in three faculties in the first quarter of 2008. Three modules, namely Financial Accounting 178, Chemistry 114 and Development and Learning (Educational Psychology) 124 were selected. The basis for selection was that the latter module is regarded as a ‘lower-risk’ module (i.e. a module with historically low student drop-out and failure rates), while Chemistry 114 is considered to be a historically ‘high risk’ module and Financial Accounting is seen as of ‘moderate risk’.

The lecturers primarily responsible for teaching these modules were asked for their independent views concerning the ‘risk’ of a particular module. Lecturer A (Development and Learning 124) is a part-time staff member who reported that the average performance percentage mark for the module was 63 for the last two years (2007 and 2008) with an average pass rate of 95. Lecturer B (Financial Accounting 178) reported the module as ‘of risk’ but the average pass rate as around 85. She added however that students spend much additional time on the module, that ‘weaker students’ get support through additional lectures in a smaller group and that student assistants also help with tutorial classes for the latter group. Strict admission requirements apply, causing the whole student group for this module to be ‘above average’. Lecturer C (Chemistry 114)
concluded that this module is ‘definitely a risk module’. The average pass rate seems to hover between 48 and 51 per cent. As from 2005 the course changed drastically in the sense that students without Chemistry as a high school subject could also enrol for the module. An additional staff member was employed to assist students who do not have much background knowledge in Chemistry and a closer look is currently being taken into more appropriate assessment strategies.

The survey instrument included four sets of factors based on the model outlined in Figure 2, namely student-related academic (8), student-related social (4), institution-related academic (7) and institution-related social (1) factors. The questionnaire was implemented towards the end of the first quarter of the academic year during class time for all three modules. Although completed anonymously, students had the option of adding their student identification numbers voluntarily to the completed questionnaire. In such cases (n=164) it was possible to relate students’ responses to their mid-year academic performance marks, thus enabling the calculation of relationships between integration factors and actual academic performance.

Survey instrument

As the co-operation of the lecturers in the three modules was required to conduct the survey and as little as possible class time needed to be taken up, the questionnaire (hence referred to as the First Year Experience Survey or FYES) was limited to 20 brief statements. Students had to respond to each statement on a four-point Likert-type ordinal scale as follows: 1 – disagree completely, 2 – disagree partially, 3 – agree partially and 4 – agree completely.

The FYES was piloted for internal validity with 10 first-year students outside of the study population and changes were made where statements were not fully understood or errors occurred. One limitation in data collection was that time and opportunity were extremely limited concerning the number of modules that could be included in the survey.

Data analysis

Each questionnaire item was tested using Cronbach’s Alpha (Lord and Novick 1968; Allen and Yen 2002) for reliability in contributing to the four areas or dimensions (see Figure 2) as derived from Louw’s framework. One dimension (institutional-social) contained only one item and reliability was therefore not tested. Student responses to the 20 items were analysed by using a three-factor ANOVA (Statistica Version 8) and performing the Bonferroni correction (Abdi 2007) to test for differences among the Education, Accounting and Chemistry groups.

In order to test for relationships between student agreement/non-agreement and first-semester student marks, a forward stepwise regression analysis was performed by applying Mallows Cp (Daniel and Wood 1980) and statistical significance was measured.
by calculating Spearman’s rank correlation coefficient (Myers and Well 2003) for all 20 questionnaire items. Only students who provided student numbers and whose academic performance could thus be traced were included in the sample.

Since the way in which student responses were recorded for the FYES and those recorded for the Alpha Baseline Questionnaire (ABQ) differs, no direct comparisons could be made. However, indirect comparisons were possible by comparing and interpreting responses to similar type questions for 137 students. Corresponding items were scrutinised and interpreted for possible trends.

RESULTS AND DISCUSSION

Results are reported according to the three research sub-questions asked, namely (1) whether risk factors as perceived by students and the general risk level of any particular module are related, (2) whether particular risk factors and first-year students’ mid-year academic performance marks are related, and (3) whether students’ pre-participation perceptions are similar or dissimilar to their mid-participation perceptions of risk factors.

Reliability of items

It was firstly important to determine whether the items constituting the FYES (as derived from Louw’s findings) contributed to the four areas/dimensions of the proposed integration model (see Figure 2). This is a particularly important finding as it would have determined whether questionnaire results could be analysed per dimension or per item only. Unfortunately the reliability test (Cronbach’s Alpha) did not support any claim that the constituting items contribute meaningfully to the respective dimensions. In fact, some items were negatively associated with contributing and it was consequently decided to proceed with individual factor analysis rather than a dimensional analysis as originally planned. Therefore, the proposed dimensions from Louw’s original framework do not fit the Stellenbosch context well. One possible reason for this might be that the methodology to identify risk factors contributing to integration in the two instances differed (one qualitative, the other quantitative). Another explanation might be that Louw’s study was with first-year students who had already dropped out, while this study focused on current students. More research is obviously needed here.

Risk factors and level of risk

The first sub-question addressed the difference in risk level amongst the three first-year groupings and which FYES items or factors could possibly be associated with the level of risk in any module. As can be seen from Figures 1–4 and Tables 1–4, significant differences (p< .01) between Education (low risk) and Financial Accounting (higher risk), were found for four factors. These factors, all relating to the academic dimension, are: experienced workload (factor 3), perceived study skills (factor 5), level of motivation (factor 7) and programme expectations (factor 19).
**Figure 3:** Response to Factor 3 [Experienced Workload]

**Figure 4:** Response to Factor 5 [Sufficient Study Skills]
Figure 5: Response to Factor 7 (Motivation)

Figure 6: Response to Factor 19 (Expectations of Programme)
Table 1: Group comparisons, Factor 3 (Experienced Workload)

<table>
<thead>
<tr>
<th>Cell No.</th>
<th>Bonferroni test; variable Q3 (IND DATA 2008) Probabilities for Post Hoc Tests Error: Between MS = .95843, df = 171.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ACC</td>
<td>0.009171</td>
</tr>
<tr>
<td>2 ED</td>
<td>0.009171</td>
</tr>
<tr>
<td>3 CHEM</td>
<td>0.419354</td>
</tr>
</tbody>
</table>

Table 2: Group comparisons, Factor 5 (Sufficient Study Skills)

<table>
<thead>
<tr>
<th>Cell No.</th>
<th>Bonferroni test; variable Q5 (IND DATA 2008) Probabilities for Post Hoc Tests Error: Between MS = .46155, df = 170.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ACC</td>
<td>0.001124</td>
</tr>
<tr>
<td>2 ED</td>
<td>0.001124</td>
</tr>
<tr>
<td>3 CHEM</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Table 3: Group comparisons, Factor 7 (Motivation)

<table>
<thead>
<tr>
<th>Cell No.</th>
<th>Bonferroni test; variable Q7 (IND DATA 2008) Probabilities for Post Hoc Tests Error: Between MS = .99113, df = 171.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ACC</td>
<td>0.000261</td>
</tr>
<tr>
<td>2 ED</td>
<td>0.000261</td>
</tr>
<tr>
<td>3 CHEM</td>
<td>0.094348</td>
</tr>
</tbody>
</table>

Table 4: Group comparisons, Factor 19 (Expectations of programme)

<table>
<thead>
<tr>
<th>Cell No.</th>
<th>Bonferroni test; variable Q19 (IND DATA 2008) Probabilities for Post Hoc Tests Error: Between MS = .65444, df = 170.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ACC</td>
<td>0.002212</td>
</tr>
<tr>
<td>2 ED</td>
<td>0.002212</td>
</tr>
<tr>
<td>3 CHEM</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

It is difficult to explain why Education students as a low-risk group perceived their workload to be heavier than that of Financial Accounting students (higher risk). One reason might be that the B.Ed. curriculum is quite ‘packed’ (too many compulsory
modules) - not so much in terms of complexity than in terms of sheer time involved in taking classes and completing tasks and projects. It was also established that Education students completed the FYES just prior to their first comprehensive semester test. This might have influenced their workload perceptions in major ways, as confirmed by the lecturer in the module. The finding in terms of perceived lack of study skills also seems surprising in that Education students see themselves as less equipped for studying successfully than Financial Accounting students. Again, any explanation here appears to be difficult as the opposite would have been expected. One explanation might be that Financial Accounting students receive additional support where needed, which is not available for B.Ed. students. As with workload, Education students might be more realistic in terms of their capabilities than Financial Accounting students in their first year of study. This was confirmed by the Financial Accounting lecturer (lecturer B) who indicated that this module would be ‘the most difficult module for Financial Accounting students’. Differences were also found between Education and Financial Accounting students regarding their levels of motivation. Although the FYES statement did not explicitly ask for their perceived motivation regarding their studies, it can be assumed that completing the FYES in class time would bear strong associations with the module at hand. In the B.Ed. case, however, identification with the programme as a whole might have been stronger, as all modules are compulsory for all Education students. The finding was thus expected, as Education students’ motivation would naturally be higher in a low-risk module/programme compared to that of Financial Accounting as a higher-risk module. On whether the programme offers what has been expected, Education students’ level of perception was somewhat, but not altogether, surprising. It can be assumed that the variety of compulsory modules in the first year of study for Education students does not contribute to a coherent view of their professional degree, while in the case of Financial Accounting, coherence probably exist to a larger extent. This might partially explain the finding. Poor or limited information to Education students on their programme of study might also be a contributing factor.

Although not discussed here, there were also indications of difference (p<0.05) regarding perceived workload (factor 3) and learning responsibility (factor 14) as expected between Education and Chemistry students.

Risk factors and students’ performance marks

The second sub-question related to links between potential risk factors and students’ mid-year academic performance marks. Only students who provided identifiable student numbers (n=164) were included in this part of the study with the aim of establishing how students’ mid-year performances relate to risk factors. From seven initial factors only five were found to relate (p<0.05) to students’ mid-year marks. Three (factors 2, 7 and 20) related very strongly (p<0.01) to mid-year performance marks (see Figures 7–9). These factors will be discussed next.
Figure 7: Spearman coefficient for Factor 2 (Academic backlogs)

Figure 8: Spearman coefficient for Factor 7 (Motivation)
Figure 9: Spearman coefficient for Factor 20 (Fair assessment)

Students’ perceptions of having academic backlogs (factor 2) strongly relates to student academic performance in the sense that more agreement with this statement points to lower academic marks. The explanation for this finding might be quite simple in that students with perceptions of having academic backlogs would in all probability not only feel inadequate to perform well academically, but would actually perform less well since perceptions inform action or lack thereof (Padilla, Gonzalez and Trevino 1997; Tierney 1999; Braxton 2000; Walker 2000; White, Gunstone, Elterman, MacDonald, McKittrick, Mills and Mulhall 2006).

The second factor (factor 7 – lack of motivation) relates strongly to academic performance in the sense that more student agreement with the statement: ‘I am not motivated’ pointed to lower marks. This finding is equally self-explanatory as studies (Fazey and Fazey 2001; Pintrich 2003) have indicated that student motivation is a key factor in study success and student performance, particularly during processes of student movement from socially prescribed to internally defined identities (Taylor 2008).

A perception of fair assessment (factor 20) is the third risk factor strongly related to academic performance. The more students see assessment to be fair, the higher their mid-year marks seem to be. This finding was as expected and of huge importance to teaching and learning in all three modules, as assessment seems a particularly important driver of successful learning and student performance (Glaser 1990; Topping 1998; Dochy 2000).
It should be pointed out that the risk factors analysed in this part of the study only account for 20 per cent of the variance, again emphasising the complex relationship between risk factors and actual student performance.

**Students’ pre-participation and early-participation perceptions**

The third sub-question inquired whether students’ pre-participation perceptions were similar or dissimilar to early- or mid-participation perceptions regarding risk factors. This attempted comparison needs some explanation.

All first-year students admitted to the institution are required to complete a pre-participation questionnaire (the Alpha Baseline Questionnaire or ABQ) described elsewhere (Bitzer 2003; 2005). The ABQ focuses mainly on Stellenbosch students’ final year of schooling and their expected first-year university experiences. A number of the questions in the ABQ overlap with questions in the FYES which lend themselves to indirect comparison. Direct comparisons and detailed analyses are not possible since responses are scaled differently and serve different purposes. However, in view of the exceedingly high levels of agreement on at least four factors in the FYES, indirect comparisons to items in the ABQ were made by frequency analysis to check whether students’ positive perceptions of these items remained positive by the end of the first quarter of the first study year. Table 5 provides the student ratings of overlapping items.

**Table 5: Compared student ratings for the FYES and the ABQ (n=137)**

<table>
<thead>
<tr>
<th>FYES Item/factor</th>
<th>FYES Agree (f)</th>
<th>FYES Agree (%)</th>
<th>ABQ Item/factor</th>
<th>ABQ Agree (f)</th>
<th>ABQ Agree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q7 – I am not motivated.</td>
<td>129</td>
<td>94.2</td>
<td>Q41 – Feeling depressed.</td>
<td>98</td>
<td>72.6</td>
</tr>
<tr>
<td>Q11 – I am worried about my financial situation.</td>
<td>117</td>
<td>85.4</td>
<td>Q75 – I am worried about paying for my studies</td>
<td>60</td>
<td>44.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Q109 – I would benefit from getting financial assistance for my studies.</td>
<td>91</td>
<td>66.9</td>
</tr>
<tr>
<td>Q12 – My family supports me.</td>
<td>132</td>
<td>96.3</td>
<td>Q152 – I have support from my family, friends and those who care for me when I have to overcome problems.</td>
<td>125</td>
<td>92.3</td>
</tr>
<tr>
<td>Q13 – The accommodation where I stay during my studies is pleasant.</td>
<td>137</td>
<td>100</td>
<td>Q1 – Do you stay in a university residence?</td>
<td>91</td>
<td>66.9</td>
</tr>
</tbody>
</table>

Obviously, not many factors regarding student or institutional academic integration could be compared, since the ABQ only measures pre-participation trends. One factor
that relates to academic risk is motivation. Table 5 shows that by the end of the first quarter the perceived motivation of the response group was low. More than 94 per cent of respondents completely or partially agreed that they were not motivated. Similarly, more than 76 per cent of pre-participation ABQ respondents indicated that they were frequently or occasionally depressed. Furthermore, three prominent social factors that might impact on academic risk are finances, family support and accommodation. Table 6 shows that students were more worried by the end of the first quarter about their financial situation (85.4 per cent of the group) than at the pre-participation stage (for instance, 44.1 and 66.9 per cent respectively were worried about paying for studies and indicated potentially benefiting from financial assistance). Several studies have indicated the importance of some financial security during higher education studies. At the University of Wolverhampton, for instance, Rhodes and Nevill (2004) have pointed to financial worries as an important contributor to potential first-year drop-out.

In contrast to financial insecurity, family and other support in both the FYES and the ABQ was perceived to be strong at 96.3 and 92.3 per cent respectively, while accommodation was perceived as pleasant for 100 per cent of the respondents. For most students (66.9 per cent) this meant university residence accommodation. These two factors (family support in general and peer influence in residences) have also proved to be important indicators of student integration at other institutions (Torres and Solberg 2001; Thomas 2000; Feldman, Smart and Ethington 2004). Overall, the comparison has shown that while student motivation levels and finances remained to be worrisome factors, family support and pleasant accommodation were strong positives.

CONCLUSIONS

A number of conclusions can be drawn from this study. Firstly, it seems clear that the framework suggested by Louw (2005) that accounts for student drop-out at four colleges of agriculture is only partially applicable to the three groups included in this study. The items as adapted for the model in use are clearly not all contributing to the dimensions of student and institutional integration. Follow-up studies of a qualitative nature will therefore be needed to find stronger contributing items for possible mid-participation integration dimensions. Nevertheless, individual factors were identified by the study that could possibly be associated with student integration and should be further explored.

Secondly, first-year students’ own perceptions of their levels of motivation seem to influence mid-participation integration and academic performance levels. In the case of Accounting the perceived level of student motivation emerged as a strong factor that is associated with higher risk and a lack of integration while in all three groups perceived lower motivation levels are associated with lower levels of performance. As the reasons for perceived levels of motivation are obviously complex, more research is needed to determine the contributing factors to perceived low motivation.
Thirdly, in terms of mid-participation, academic performance levels related to at least two factors other than student motivation can be associated with academic integration. Perceived academic backlogs as a student-related academic factor and fair assessment as an institution-related academic factor seem to be potentially major contributors to student integration. This finding is important for several reasons. One reason is that most students in South Africa arrive at universities with some or other backlog that requires academic support. This is true for most programmes and it is mainly due to a weak high school system which does not imply a deficiency approach. Rather, a positive approach towards academic development whereby student support needs are identified, support measures or structures are put in place and determining whether these are effective or not are needed (also see Du Pré 2001). The First-year Academy that was started at Stellenbosch University and provides for an integrated support system is a good example of how the challenge of academic backlogs and student performance might be tackled (Mail & Guardian Online 2008). Another reason why this finding is important is that student assessment plays a prominent part in the teaching-learning system at Stellenbosch University and in many programmes summative assessment carries much weight. Formative and continuous assessment has only recently taken off and more work is needed in order to shift the emphasis from heavy assessment to more productive learning. In view of the status quo position, perceived fair assessment of learning remains important as it relates not only to student motivation but, as pointed out by the study, to mid-year student performance.

Finally, the trends that have emerged from an indirect comparison of pre-participation and mid-participation student perceptions point to attention needed in at least three areas related to social integration factors. While students’ financial position in both instances (i.e. pre- and mid-participation) appears to be a factor impacting negatively on integration, it causes greater concern that finances have become a more troublesome factor for students during mid-participation. While it is suspected that only a minority of black students were included in the sample, it seems even more worrying given the findings of the Human Sciences Research Council (University World News 2008) on the relationship between student finances and drop-out. In contrast, family support and pleasant accommodation seem to be highly supportive factors for all groups during mid-participation, which might compensate for a number of other potential integration negatives.

**IMPLICATIONS**

This article has proposed a holistic perspective of first-year student integration and assumed that any simplified explanation of integration is flawed. Therefore, no simple explanations or implications are offered. As only students in three examples of first-year modules have been included in the study its findings might have a number of implications for lecturers, students and support services in the programmes and faculties where these modules are situated. As much as these implications cannot be generalised, they might provide pointers to or, at the least, starting points for discussion on student integration in similar institutions or contexts.
Early and mid-participation perceptions and feedback from students appear to be potentially useful to academic staff—especially when associated with baseline data and mid-participation performance results. In this case it seems important that achievable student workload requirements be set in the first semester of studies, particularly seen against the background of findings such as those of Danaher, Bowser and Somasundaram (2008), who suggest adopting integrated and situated strategies that take into account faculty and programme differences. Determining the level of students’ study skills and overcoming academic backlogs that are required for successful first-year work also seem important. Wrong assumptions by staff in these areas might be devastating to students, particularly in modules where no previous schooling background is required. Similarly, staff need to be sure that students have received the right information on modular and programme requirements to prevent inflated expectations. In Financial Accounting, for instance, one lecturer invited a practising chartered accountant during the first month of studies to indicate what is expected from practitioners in the field and to answer students’ questions. From interventions such as these, students’ decisions might be more accurate concerning modular and programme choices. The question of fair assessment in modules is non-negotiable, since assessment, particularly in many first-year modules, still predominantly drives student learning. In cases where large student groups are involved and part-time or adjunct staff are hired for marking, academic staff need to be sure that moderation and control measures are in place. Taken together, all these factors impact on student motivation and seem crucial for the productive facilitation of learning by lecturers.

It seems equally important to make students aware of their collective perceptions of potential risk and non-integration—particularly where risk is a concern in a learning module. One implication of experiencing heavy workloads might be to sensitize students to the requirements of university-level academic work and to check whether they might not confuse ‘much to do’ with levels of complexity. In the former case improved time management and organisation skills might solve the potential problem, while the latter case might require other new learning strategies or even new modular or programme choices for students. Another worrying factor is students’ wrong expectations of study programmes and preventative actions on their part. In all instances the onus is on the student to find out as much as possible about any chosen programme of study before enrolling and on the institution to provide this information. If students have limited access to information, are given the wrong information or make the wrong choices in spite of correct information, integration and study success might be compromised.

For student support services the implications of the study seems quite clear. First-generation students and students with weak schooling backgrounds will, in all probability, increasingly experience perceptions of academic backlogs as they are exposed to learning programmes. The challenge for student support services in faculties will be to determine the nature and scope of these backlogs and to provide adequate integrated support for students to limit risk of failure. The type of support offered will have to be determined in close co-operation with lecturers in risk modules and the students themselves. Student support services also need to determine why students perceive low
levels of mid-participation motivation. This could be crucial for student persistence and success. Similarly, financial worries of the majority of students in this study seem to be of concern and this aspect needs to be addressed by student support services at levels other than at the individual student level.

CONCLUSION

The academic and social integration of first-year students in higher education remains essential for study commitment, study success and preventing early student departure. This study, by taking a holistic approach in three first-year modules during mid-participation at Stellenbosch University, have indicated that the level of student integration might be influenced by at least nine academic and social factors. Close attention from lecturers, students and support services to these factors might influence both the commitment of first-year students to their studies and the contribution towards study success in important ways. Also, as was pointed out in the study, the close relationship between successful integration and student motivation remains a challenge, while the complex relationships among personal, academic and social factors will continue to prevent any simplified explanation of or interventions towards first-year student integration.

NOTE

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Academic and social integration in three first-year groups: A holistic perspective


