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## Abstract

Adjustment to the first year of university involves engaging with the university culture and developing a sense of belonging or attachment. Difficulty making the transition to university can result in students deferring or withdrawing from their courses. While mature-age students experience many of the challenges of all first-year students such as social dislocation, academic anxiety, and unrealistic expectations, they are more likely than school-leaver students to have family responsibilities and time constraints. The ability to manage competing demands on their time can affect their participation in campus-based activities and negatively impact their sense of belonging to the university. This paper reports on the adjustment to the first year of university of 40 mature-age students, measured through an analysis of their responses on a 55-item survey questionnaire. The findings suggest that the mature-age students adjusted well, academically; however, they had lower measures of adjustment in their social and personal adjustment. The challenge for universities is to identify and respond to the needs of mature-age students during their transition to university.

# Measures of the Adjustment of Mature-age, Undergraduate Students to University

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**Abstract**

Adjustment to the first year of university involves engaging with the university culture and developing a sense of belonging or attachment. Difficulty making the transition to university can result in students deferring or withdrawing from their courses. While mature-age students experience many of the challenges of all first-year students such as social dislocation, academic anxiety, and unrealistic expectations, they are more likely than school-leaver students to have family responsibilities and time constraints. The ability to manage competing demands on their time can affect their participation in campus-based activities and negatively impact their sense of belonging to the university. This paper reports on the adjustment to the first year of university of 40 mature-age students, measured through an analysis of their responses on a 55-item survey questionnaire. The findings suggest that the mature-age students adjusted well, academically; however, they had lower measures of adjustment in their social and personal adjustment. The challenge for universities is to identify and respond to the needs of mature-age students during their transition to university.

**Keywords:** mature-age students, transition to university, university adjustment

**Introduction**

Students face a wide range of challenges as they transition into the first-year of university. Transition can be confronting, as it involves repositioning individual interpretations of their world and their place in it (Huon & Sankey, 2000). Students are more likely to adjust well when they have the skills and confidence to successfully function in the new environment and understand the new culture (Margetts, 1999). The formation of positive connections at university can promote a sense of belonging and commitment to the institution (Educational Transitions & Change Research Group, 2011), while a lack of attachment and a limited sense of identity and self-esteem can undermine the sense of purpose and belonging necessary for a smooth transition, resulting in poor academic and social integration (Carr, Colthurst, Coyle & Elliott, 2013; McInnis & James, 1995; McMillan, 2013; Pascarella & Terenzini, 1991).

While mature-age students share many of the issues and concerns of other first year students, additional factors such as dependents, financial commitments, paid employment, the time since they last used academic skills, lack of familiarity with ICT, the style of assessment, and loneliness and social dislocation on campus contribute to feelings of anxiety and can compromise overall university adjustment. A difficult transition can have implications for both academic and social

adjustment and personal wellbeing (Kantanis, 2002) and may result in students deferring or withdrawing from their courses. Failure to make the adjustment to university can also have financial consequences for employment opportunities and promotion (Krumrei-Mancuso, Newton, Kim, & Wilcox, 2013) and personal implications for students, including loss of self-confidence (McInnis & James, 1995).

Transition to higher education is complex not only for the challenges students face in accessing the organizational, academic, and social cultures of the institution, but also for the challenges to their personal identity. While overall university adjustment is affected by academic, social and personal adjustment (Friedlander, Reid, Shupak, & Cribbie, 2007) and student attachment to their institution (Baker & Siryk, 1989, 1999), these domains are not mutually exclusive. Issues of adjustment in one domain can have implications for adjustment in other areas (Yau, Sun, & Cheng, 2012).

The findings of McKenzie and Schweitzer (2001) support the assumption that successful academic performance has a positive influence on university adjustment, while the quality of students' social support networks (Ayres & Guilfoyle, 2009; Buote, Pancer, Pratt, Adams, Birnie-Lefcovitch, Polivy & Wintre, 2007; Chavoshi, Wintre, Dentakos & Wright, 2017; Hughes & Small, 2015) and personal factors (Baker & Siryk, 1989, 1999; Freidlander et al., 2007) are also important features of a successful adjustment.

Typically, mature-age, undergraduate students have had a break from study before commencing university. The definition of *mature-age student* varies between institutions, especially with respect to the age at which the classification takes effect. At the University of Melbourne, applicants without a recent study history or who may not meet the standard university entry requirements can apply through the *Non-school-leaver entry pathway* (The University of Melbourne, 2018). To be eligible for enrolment in undergraduate courses at the University of Melbourne through this pathway, applicants must be at least 23 years of age and have no qualifications in the previous seven years that could be used as a basis for admission to university (The University of Melbourne, 2010, 2015). Feelings of dislocation and difficulties adjusting to university can occur when students are older than the main cohort of students who enter university directly from secondary school (school-leaver students). A lack of friends or acquaintances with whom to share ideas and spend time on campus can promote feelings of loneliness and put students "at a higher risk of attrition because they do not have social support in the university environment" (Ayres & Guilfoyle, 2009, p. 9).

Additionally, mature-age students are often enrolled in university on a part-time basis as they attempt to balance work, family life, and other responsibilities with academic study. Finding the balance between study and the obligations and responsibilities of their lives away from the university is essential to students' personal adjustment and ultimately to their academic and overall adjustment (Drury, Francis, & Chapman, 2008). A supportive home and/or work environment are important contributors to a positive adjustment to university, particularly in relation to students' personal adjustment (Bird & Morgan, 2003; Kantanis, 2002).

Engagement with the university social culture can ease the transition process, promoting a sense of student identity and providing opportunities for making connections with other people on campus. The formation of positive connections can promote a sense of belonging and commitment

(Educational Transitions & Change Research Group, 2011), while a lack of attachment and a limited sense of identity can undermine the sense of purpose and belonging necessary for a smooth transition, resulting in poor academic and social integration (McInnis & James, 1995; Pascarella & Terenzini, 1991) and increased chance of withdrawal (Darlaston-Jones, Cohen, Haunold, Pike, Young, & Drew, 2003; Peel, 1999; Tinto, 1995).

Research in the area of adult students and higher education is well-established in Europe, the United Kingdom, the United States, and Australia. A consideration of adult learner identities (Brine & Waller, 2007; Crossan, Field, Gallacher, & Merrill, 2003; Kasworm, 2005, 2010) including their perceived separation from younger students, isolation and relational dynamics (Baxter & Britton, 2011; Mallman & Lee, 2016, 2017; Parks, Evans, & Getch, 2013; Simi & Matusitz, 2016) reveals the complexity of being an adult learner in higher education. Research findings have also suggested that adult learners struggle with social constructions (Massey, 2015; Parks, Evans, & Getch, 2013; Simi & Matusitz, 2016), particularly in navigating the academic culture and social dynamics of university or college, while studies focusing on student anxiety, such as mentor and targeted induction programs, demonstrate the types of resources and university services which have an impact on a successful adjustment (Burton, Golding Lloyd, & Griffiths, 2011).

The changing demographics of students commencing undergraduate courses globally present a challenge to tertiary institutions. In Australia, the diversity of the student cohort is increasing as greater numbers of international and mature-age students pursue tertiary education. Demographic diversity raises questions about the relevance of orientation programs and university services, the number and types of courses offered, the timing of lectures and tutorials, the presentation mode of course content, the range of assessment options, and the requirements of collaborative work (Kantanis, 2002). This can result in an increase in the financial investment of tertiary institutions to accommodate the wide range of student requirements and support.

A one-size-fits-all model is inadequate to ensure the increasing number of these students have a positive transition and successfully adjust to university (Meuleman, Garrett, Wrench, & King, 2015). This paper reports the results from a larger study investigating the transition of mature-age students to university through both survey and interview data. Through an analysis of responses to a survey questionnaire, which measured the adjustment of a group of 40 mature-age, undergraduate students across four domains of adjustment, the research answered the key questions:

1. How well do mature-age, undergraduate students adjust to university?
2. What are the factors that affect mature-age student adjustment to university?

**Participants**

At the time of the study, 976 of the 9488 students enrolled in first-year, undergraduate courses at the University of Melbourne (10.3%) were mature-age students. Students were invited to participate in the study through notices on the university student portal, the Mature-Age Students' Facebook Page, and by personal invitation at the inaugural meeting of the Mature-age Students' Club. Although the classification mature-age student typically includes older students studying a second degree or postgraduate course, the 40 eligible participants in this study were enrolled in their first undergraduate university degree course. The number of participants in the study is low,

($N = 40$); however, the participants represent 4% of the mature-age students studying at the University of Melbourne at the time data were collected.

## Method

A modified online version of the Student Adaptation to College Questionnaire (SACQ) (Baker & Siryk, 1989, 1999) was used to determine measures of adjustment to university. The SACQ, which measures adjustment on each of four scales: academic, social and personal adjustment, and institutional attachment was designed to assess the "quality of the students' adjustment to–rather than an evaluation of–that environment" (Baker & Siryk, 1989, 1999, p. 4). Table 1 shows a summary of the four scales and 10 subscales of adjustment used in the survey questionnaire.

**Table 1.** Adjustment Scales and Subscales

| Scale | Subscale | Description |
|---|---|---|
| **Academic Adjustment (AA)** | | **Contains 21 items in four subscales** |
| | Motivation (AAM) | Attitudes towards academic goals, motivation and purpose |
| | Application (AAA) | The extent to which the motivation is translated into effort |
| | Performance(AAP) | The success of the application |
| | Environment (AAE) | Satisfaction with the environment |
| **Social Adjustment (SA)** | | **Contains 20 items in four subscales** |
| | General (SAG) | Extent and success of social activities |
| | Other People (SAP) | Relationships with other people at university |
| | Nostalgia (SAN) | Social relocation and homesickness |
| | Environment (SAE) | Satisfaction with the social aspects of the university |
| **Personal Adjustment (PA)** | | **Contains 11 items in two subscales** |
| | Psychological (PAPs) | Psychological well-being |
| | Physical (PAPh) | Physical well-being |
| **Attachment (A)** | | **Contains 11 items in one scale** |
| | | Degree of satisfaction with the university |

*Note.* The Student Adaptation to College Questionnaire (Baker & Siryk, 1989, 1999)

Participants rated their experiences of university adjustment on a five-point Likert-type scale with 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree (neutral), 4 = agree and 5 = strongly agree. The scores were aggregated and a mean adjustment score for the group of 40 participants was calculated.

## Results

Participant responses on the survey questionnaire enabled measures of adjustment to be determined on 10 subscales and four subscales of adjustment.

**Table 2.** Mean Adjustment Subscale Scores and Percentage Mean Adjustment Subscale Scores

| Scale | | Academic Adjustment | | | | Social Adjustment | | | | Personal Adjustment | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Subscale | | AAM[a] | AAA[a] | AAP[a] | AAE[a] | SAG[a] | SAP[a] | SAN[a] | SAE[a] | PAPs[a] | PAPh[a] |
| | $n$ | (10) | (4) | (14) | (14) | (14) | (16) | (4) | (6) | (16) | (6) |
| Whole group | 40 | 8.8 | 3.7 | 7.3 | 11.8 | 6.9 | 7.1 | 2.8 | 2.6 | 11.6 | 3.5 |
| Whole group | (%) | 88.0 | 92.5 | 52.1 | 84.3 | 49.3 | 44.4 | 70.0 | 43.3 | 72.5 | 58.3 |

*Note.* [a] **Academic Adjustment:** AAM Motivation, AAA Application, AAP Performance, AAE Environment; **Social Adjustment:** SAG General, SAP Other People, SAN Nostalgia, SAE Environment; **Personal Adjustment:** PAPs Psychological, PAPh Physical

Subscale mean scores within the Social and Personal Adjustment scales were generally lower than those in the Academic Adjustment scale. The highest mean score was identified in the Application subscale of Academic Adjustment (92.5%) and the lowest in the Environment subscale of Personal Adjustment (43.3%). The lowest subscale mean score in the Academic Adjustment scale was

identified in the Performance subscale (52.1%); however, the survey was completed prior to first semester marks being published and scores on this subscale may not have been a reflection of participants' grades, but of perceptions of their progress and performance. The highest mean score in the Social Adjustment scale was for the subscale of Nostalgia (70.0%), indicating that participants were less concerned about social relocation and homesickness than other aspects of their social adjustment.

Subscale scores in each of the four scales were combined to provide scale scores for each of the Academic Adjustment, Social Adjustment and Personal Adjustment scales. Calculation of mean adjustment scores on the scales of Academic, Social, Personal Adjustment and Attachment enabled comparison between these four scales (Table 3).

**Table 3.** Mean Adjustment Scale Scores and Percentage Mean Adjustment Scale Scores

| Scale | | Academic Adjustment (32) | | Social Adjustment (40) | | Personal Adjustment (22) | | Attachment (22) | |
|---|---|---|---|---|---|---|---|---|---|
| | *n* | *M* | % | *M* | % | *M* | % | *M* | % |
| Whole group | 40 | 22.8 | 71.3 | 19.3 | 48.3 | 15.7 | 71.4 | 14.6 | 66.4 |

*Note. M*: Mean adjustment subscale score; **%:** Percentage mean adjustment score

As a group, the highest mean adjustment score was identified in the Personal Adjustment scale; 15.7 out of 22 (71.4%), followed closely by Academic Adjustment (71.3%). In contrast, the mean adjustment score of the group on the Social Adjustment scale was much lower at 19.3 out of a possible 40 (48.3%). Students' mean adjustment scores on Attachment were higher than on Social Adjustment, but lower than on the other two scales (66.4%).

### *Associations Within and Between the Four Scales of Adjustment*

Spearman bivariate rank correlation analyses confirmed the validity of the use of subscales in creating four scale scores and an Overall Index of Adjustment (Table 4).

**Table 4.** Correlations Within and Between the Four Scales of Adjustment

| | Academic Adjustment (AA) | | | | Social Adjustment (SA) | | | | | Personal Adjustment (PA) | | Attachment (A) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AAA | AAP | AAE | AA | SAG | SAP | SAN | SAE | SA | PAPs | PAPh | PA | A |
| AAM | .092 | .283 | .147 | | -.049 | -.029 | .229 | -.021 | | .054 | .226 | | .205 |
| AAA | | .386* | .495** | | .047 | -.070 | -.111 | .284 | | .389* | .218 | | .102 |
| AAP | | | .204 | | .078 | .203 | .114 | .302 | | .688** | .457** | | .165 |
| AAE | | | | | .190 | .196 | .130 | .486** | | .420** | .326* | | .521** |
| **AA** | | | | | .028 | .125 | .138 | .357* | .207 | .640** | .447** | .626** | .317* |
| SAG | | | | | | .703** | .334* | .584** | | .439** | .280 | | .700** |
| SAP | | | | | | | .307 | .633** | | .493** | .404** | | .696** |
| SAN | | | | | | | | .334* | | .292 | .281 | | .601** |
| SAE | | | | | | | | | | .644** | .445** | | .718** |
| **SA** | | | | | | | | | | .595** | .437** | .592** | .789** |
| PAPs | | | | | | | | | | | .614** | | .531** |
| PAPh | | | | | | | | | | | | | .537** |
| **PA** | | | | | | | | | | | | | .593** |

*Note.* ** *p* < 0.01      * *p* < 0.05
AAM Motivation, AAA Application, AAP Performance, AAE Environment, SAG General, SAP Other People, SAN Nostalgia, SAE Environment, PAPs Psychological, PAPh Physical

The significant, positive association between the subscales Application and Performance (*p* < 0.05) suggests that high levels of application were associated with high levels of performance; however, other associations between the subscales of Academic Adjustment were generally low, with a

negative association indicated between Application and Motivation. Academic Motivation was not included in the calculated scale score for Academic Adjustment due to its lack of association with other subscale scores within this scale.

Significant and positive associations were indicated between all subscales within Social Adjustment, except Other People and Nostalgia. The subscale; General correlated highly with Other People ($p < 0.01$), Environment ($p < 0.01$) and Nostalgia ($p < 0.05$), indicating high levels of involvement in social activities were associated with satisfaction with relationships with other people. High associations between the measures within this scale justified their inclusion in a scale score for Social Adjustment.

A significant positive association ($p < 0.01$) within the Personal Adjustment scale suggests that high scores on Psychological Adjustment were related to high scores on Physical Adjustment. These subscales were considered acceptable in contributing to the scale score for Personal Adjustment.

With the exclusion of Academic Motivation from the Academic Adjustment scale, the remaining three subscale scores were added to achieve a scale score for this domain. All four subscale scores in the Social Adjustment scale and both subscale scores in the Personal Adjustment scale were added to achieve scale scores for these two domains. To support the determination of an overall score of adjustment, associations were calculated between the four scales of adjustment, using bivariate Spearman two-tailed correlation analyses (Table 4). Scale scores were calculated by adding the subscale scores in each of the four scales, except in Academic Adjustment, where the subscale of Academic Motivation was excluded due to its lack of significant associations within the scale.

Apart from the lack of association between the scales of Academic Adjustment and Social Adjustment, associations between the four scales were significant. The significance of the association between the scales of Attachment and Social Adjustment was not unexpected ($p < 0.01$), since 7 of the 11 items in the Attachment scale were also included in the Social Adjustment scale.

Significant associations were indicated between the scales of Academic Adjustment and Personal Adjustment ($p < 0.01$) and Academic Adjustment and Attachment ($p < 0.05$), suggesting high scores on Academic Adjustment related to high scores on both Personal Adjustment and Attachment to the university. The association between Academic and Social Adjustment was not significant.

### An Overall Index of Adjustment

The establishment of an Overall Index of Adjustment (OIA) was appropriate to identify patterns and trends of general university adjustment; however, analysis of an OIA without consideration of the subscales and scales that create it is problematic. A low Overall Index of Adjustment does not preclude the occurrence of appropriate adjustment or adjustment in a particular domain (Baker & Siryk, 1989, 1999).

The significance of the associations *between* the four scales, presented in Table 4, supported the calculation of an Overall Index of Adjustment; however, Academic Adjustment, was excluded

from the final calculation of an Overall Index of Adjustment, due to its lack of significant associations with the other three adjustment scales. The mean Overall Index of Adjustment for the 40 participants was determined to be 49.7 out of a possible total of 84. This translates to a mean percentage score of 59.2 and suggests that although some adjustment has been achieved, the students in the sample did not rate their adjustment to university highly.

### Item Responses on the Four Scales and 10 Subscales of Adjustment

An analysis of item responses was used to determine mean and percentage mean scores on the 10 subscales and 4 scales of adjustment and an overall index of adjustment.

*Academic Adjustment*

This scale addresses the educational demands, attitudes, application to study, accomplishment, and satisfaction with the academic environment as perceived by the students. The highest agreement was with items associated with Academic Motivation. Students showed lower levels of agreement with items on the Academic Performance subscale. A summary of responses to the four subscales of Academic Adjustment is presented in Table 5.

Most students (87.5%) indicated they were enjoying their academic work at university (Item 27), with 57.5% of participants responding with strongly agree. This positive response was reflected in Item 34, "interests are related to course work" with 80% responding with agree/strongly agree on this item. Although 95% of participants agreed they knew why they were at university (Item 5) and 82.5% knew the importance of gaining a degree (Item 14), only 60% considered that their goals and purposes were well defined (Item 13).

All but one of the participants considered they were attending class regularly (Item 24); however, fewer participants indicated they were keeping up to date with academic work (Item 3).

The range of agreement in the Academic Performance subscale was the widest of the subscales, with agreement on the nine items ranging from 72.5% (Item 46) to 30% (Item 15). Over two thirds of participants (72.5%) agreed they had the appropriate academic skills to commence their course (Item 46) while 60% were finding academic work difficult (Item 6). Satisfaction with their use of study time (Item 15) was the lowest of the 21 items in the four subscales of Academic Adjustment (30%). The relatively high agreement relating to "satisfaction with academic performance" (Item 9) is reflected in the percentage of agreement on Item 21, "satisfaction with academic results and the amount of work". Over half of the participants (55%) agreed they were not having difficulty getting started on reading and homework (Item 29) and 57.5% agreed they were managing academic and other commitments (Item 54). These responses contrasted with the lower percentage agreement to Item 15, "satisfaction in the use of study time".

Although responses in the Academic Environment subscale indicated agreement ranging from 57.5% to 72.5%, the percentage of strongly agree responses was relatively low. The highest overall agreement was on Item 38, "satisfaction with the quality of lecturers" (72.5%). Satisfaction with the number and variety of courses offered was lowest, with 57.5% agreement (Item 17).

**Table 5.** Item Analysis for the Academic Adjustment Scale

| Item No. | Description | StAgree[a] | | Agree[a] | | Neutral[a] | | Disagree[a] | | StDisagree[a] | | NR[a] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | n | *%* | *n* | *%* |
| **Motivation** | | | | | | | | | | | | | |
| 5 | Knows why they are at university | 23 | 57.5 | 15 | 37.5 | 2 | 5.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 13 | Has well defined goals & purposes | 9 | 22.5 | 15 | 37.5 | 10 | 25.0 | 5 | 12.5 | 0 | 0.0 | 1 | 2.5 |
| 14 | Knows the importance of gaining a degree | 19 | 47.5 | 14 | 35.0 | 6 | 15.0 | 0 | 0.0 | 0 | 0.0 | 1 | 2.5 |
| 27 | Enjoys academic work | 15 | 37.5 | 20 | 50.0 | 4 | 10.0 | 1 | 2.5 | 0 | 0.0 | 0 | 0.0 |
| 34 | Interests are related to coursework | 13 | 32.5 | 19 | 47.5 | 4 | 10.0 | 3 | 7.5 | 1 | 2.5 | 0 | 0.0 |
| **Application** | | | | | | | | | | | | | |
| 3 | Keeps up to date with academic work | 10 | 25.0 | 21 | 52.5 | 7 | 17.5 | 1 | 2.5 | 1 | 2.5 | 0 | 0.0 |
| 24 | Attends classes regularly | 30 | 75.0 | 9 | 22.5 | 0 | 0.0 | 1 | 2.5 | 0 | 0.0 | 0 | 0.0 |
| **Performance** | | | | | | | | | | | | | |
| 6 | Finding academic work not difficult | 6 | 15.0 | 10 | 25.0 | 9 | 22.5 | 12 | 30.0 | 3 | 7.5 | 0 | 0.0 |
| 9 | Satisfaction with academic performance | 9 | 22.5 | 16 | 40.0 | 9 | 22.5 | 5 | 12.5 | 1 | 2.5 | 0 | 0.0 |
| 15 | Satisfaction in the use of study time | 4 | 10.0 | 8 | 20.0 | 15 | 37.5 | 10 | 25.0 | 3 | 7.5 | 0 | 0.0 |
| 19 | Not having difficulty concentrating | 8 | 20.0 | 20 | 50.0 | 6 | 15.0 | 6 | 15.0 | 0 | 0.0 | 0 | 0.0 |
| 21 | Satisfaction with academic results & amount of work | 10 | 25.0 | 18 | 45.0 | 4 | 10.0 | 7 | 17.5 | 1 | 2.5 | 0 | 0.0 |
| 29 | Not having difficulty getting started on reading & homework | 6 | 15.0 | 16 | 40.0 | 11 | 27.5 | 6 | 15.0 | 0 | 0.0 | 1 | 2.5 |
| 46 | Has appropriate academic skills to commence course | 11 | 27.5 | 18 | 45.0 | 4 | 10.0 | 4 | 10.0 | 3 | 7.5 | 0 | 0.0 |
| 54 | Manages academic & other commitments | 4 | 10.0 | 19 | 47.5 | 9 | 22.5 | 5 | 12.5 | 3 | 7.5 | 0 | 0.0 |
| 55 | Satisfaction with ability to remember & retain information | 11 | 27.5 | 11 | 27.5 | 7 | 17.5 | 5 | 12.5 | 6 | 15.0 | 0 | 0.0 |
| **Environment** | | | | | | | | | | | | | |
| 17 | Satisfaction with course no. & variety of courses offered | 6 | 15.0 | 17 | 42.5 | 9 | 22.5 | 6 | 15.0 | 2 | 5.0 | 0 | 0.0 |
| 23 | Satisfaction with course quality | 8 | 20.0 | 19 | 47.5 | 7 | 17.5 | 5 | 12.5 | 1 | 2.5 | 0 | 0.0 |
| 31 | Satisfaction with course timetabling | 7 | 17.5 | 21 | 52.5 | 1 | 2.5 | 8 | 20.0 | 3 | 7.5 | 0 | 0.0 |
| 38 | Satisfaction with quality of lecturers | 9 | 22.5 | 20 | 50.0 | 6 | 15.0 | 5 | 12.5 | 0 | 0.0 | 0 | 0.0 |
| 42 | Satisfaction with their academic situation | 8 | 20.0 | 18 | 45.0 | 8 | 20.0 | 6 | 15.0 | 0 | 0.0 | 0 | 0.0 |

*Note*. [a]StAgree – Strongly Agree, StDisagree – Strongly Disagree, NR – No Response, *N*=40

## Social Adjustment

This scale is important in terms of the interpersonal-societal demands on students and includes social functioning, involvement and relationships with other people, social and physical relocation, and satisfaction with the social environment (Table 6).

The high response rates of strongly disagree and disagree for items relating to involvement in social activities and relating to satisfaction with participation (Items 7 and 25) were of concern. When considered in conjunction with items relating to meeting and making new friends, close ties at university, having good friends or acquaintances at university and making friends with school-leaver students (Items 4, 12, 39, and 48), it is evident that participants were not forming social

relationships or participating in social activities in their first year at university. Although 80% agreed/strongly agreed they had sufficient social skills to get along at university (Item 18), only 25% were satisfied with the extent of their participation in social activities (Item 25) or with their university social life (Item 41). The low levels of agreement shown with Item 7 "involvement in social activities" (7.5%) and with Item 12 "ties at university" (17.5%), in conjunction with high percentages of disagreement on these items, provided further evidence of participant dissatisfaction with their university social life.

**Table 6.** Item Analysis for the Social Adjustment Scale

| Item No. | Description | StAgree n | StAgree % | Agree n | Agree % | Neutral n | Neutral % | Disagree n | Disagree % | StDisagree n | StDisagree % | NR n | NR % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **General** | | | | | | | | | | | | | |
| 1 | Fitting in to the university environment | 5 | 12.5 | 15 | 37.5 | 13 | 32.5 | 7 | 17.5 | 0 | 0.0 | 0 | 0.0 |
| 7 | Involvement in university social activities | 0 | 0.0 | 3 | 7.5 | 4 | 10.0 | 16 | 40.0 | 17 | 42.5 | 0 | 0.0 |
| 8 | Satisfaction with adjustment to university | 2 | 5.0 | 22 | 55.0 | 13 | 32.5 | 3 | 7.5 | 0 | 0.0 | 0 | 0.0 |
| 12 | Close ties at university | 7 | 17.5 | 0 | 0.0 | 6 | 15.0 | 12 | 30.0 | 13 | 32.5 | 2 | 5.0 |
| 18 | Social skills to get along at ty | 8 | 20.0 | 24 | 60.0 | 4 | 10.0 | 4 | 10.0 | 0 | 0.0 | 0 | 0.0 |
| 25 | Satisfaction with extent of ation in social activities | 1 | 2.5 | 9 | 22.5 | 10 | 25.0 | 9 | 22.5 | 11 | 27.5 | 1 | 2.5 |
| 41 | Satisfaction with university fe | 1 | 2.5 | 9 | 22.5 | 8 | 20.0 | 17 | 42.5 | 5 | 12.5 | 0 | 0.0 |
| **Other People** | | | | | | | | | | | | | |
| 4 | Meeting and making new friends at university | 4 | 10.0 | 3 | 7.5 | 6 | 15.0 | 17 | 42.5 | 10 | 25.0 | 0 | 0.0 |
| 10 | Informal, personal contacts with academics | 4 | 10.0 | 10 | 25.0 | 8 | 20.0 | 14 | 35.0 | 4 | 10.0 | 0 | 0.0 |
| 22 | Feeling at ease with others at ty | 2 | 5.0 | 8 | 20.0 | 12 | 30.0 | 12 | 30.0 | 6 | 15.0 | 0 | 0.0 |
| 39 | Have good friends or acquaintances at university | 3 | 7.5 | 11 | 27.5 | 5 | 12.5 | 12 | 30.0 | 9 | 22.5 | 0 | 0.0 |
| 48 | Making friends with school- | 2 | 5.0 | 10 | 25.0 | 8 | 20.0 | 11 | 27.5 | 9 | 22.5 | 0 | 0.0 |
| 49 | Making friends with mature- ents | 5 | 12.5 | 16 | 40.0 | 6 | 15.0 | 9 | 22.5 | 4 | 10.0 | 0 | 0.0 |
| 50 | Feels part of the first year | 2 | 5.0 | 6 | 15.0 | 7 | 17.5 | 13 | 32.5 | 12 | 30.0 | 0 | 0.0 |
| 51 | Academic staff treat me the same as school-leavers | 6 | 15.0 | 11 | 27.5 | 11 | 27.5 | 9 | 22.5 | 3 | 7.5 | 0 | 0.0 |
| **Nostalgia** | | | | | | | | | | | | | |
| 28 | No feelings of loneliness loneliness at university | 3 | 7.5 | 12 | 30.0 | 13 | 32.5 | 9 | 22.5 | 3 | 7.5 | 0 | 0.0 |
| 33 | Prefer to be at university than at home | 20 | 50.0 | 17 | 42.5 | 2 | 5.0 | 1 | 2.5 | 0 | 0.0 | 0 | 0.0 |
| **Environment** | | | | | | | | | | | | | |
| 11 | Satisfaction with decision to attend university | 25 | 62.5 | 9 | 22.5 | 6 | 15.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 16 | Satisfaction with extra - ar activities | 2 | 5.0 | 11 | 27.5 | 18 | 45.0 | 5 | 12.5 | 4 | 10.0 | 0 | 0.0 |
| 47 | Feels included in the university ty social culture | 1 | 2.5 | 5 | 12.5 | 9 | 22.5 | 12 | 30.0 | 13 | 32.5 | 0 | 0.0 |

Responses in the "Other People" subscale showed relatively low agreement, apart from Item 49, where there was over 50% agreement that participants were making friends with mature-age students; however, percentage agreement relating to making friends with school-leavers was considerably lower (30%, Item 48). Although there was 35% agreement of having good friends or acquaintances at university (Item 39), fewer than 20% of participants showed agreement with Item 4, "meeting and making new friends at university" and 20% with Item 50, "feels part of the first-year cohort".

Comparing the low level of agreement to having good friends, meeting and making new friends, and having close ties at university, there was a much higher level of positive responses (37.5%) to Item 28, "no feelings of loneliness at university". Ninety percent of participants preferred to be at university than at home, with 50% strongly agreeing with this item.

Agreement in the Environment subscale was highest on Item 11, with 85% agreement relating to satisfaction with their decision to attend university. Although half of the participants agreed/strongly agreed they were fitting into the university environment (Item1), fewer than 33% agreed/strongly agreed they were satisfied with the university provided extra-curricular activities (Item 16) and only 15% considered that they were included in the university social culture (Item 47). Responses in this subscale reflected the low agreement with items in the three other subscales of Social Adjustment. In particular, items relating to involvement and participation in social activities (Items 7, 25), having close ties at university (Item 12), and satisfaction with their university social life (Item 41), identified difficulties in participants' Social Adjustment to university

Sixty percent of participants agreed/strongly agreed they were "satisfied with adjustment to university" (Item 8), and half agreed/strongly agreed they were "fitting in to the university environment" (Item 1). Given their limited overall social adjustment, it is interesting that most were in agreement with Item 11 "Satisfaction with decision to attend university" (85%) and Item 33, "Preferred to be at university than at home" (92.5%).

*Personal Adjustment*

The Personal Adjustment scale relates to students' wellbeing and includes the two subscales: Psychological and Physical adjustment.

**Table 7.** Item Analysis for the Personal Adjustment Scale

| Item No. | Description | StAgree | | Agree | | Neutral | | Disagree | | StDisagree | | NR | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* | *n* | *%* |
| **Psychological** | | | | | | | | | | | | | |
| 2 | No feelings of tension & nervousness | 3 | 7.5 | 9 | 22.5 | 5 | 12.5 | 17 | 42.5 | 6 | 15.0 | 0 | 0.0 |
| 26 | No concerns about expenses | 2 | 5.0 | 9 | 22.5 | 12 | 30.0 | 10 | 25.0 | 7 | 17.5 | 0 | 0.0 |
| 30 | Have good control over life situation | 3 | 7.5 | 20 | 50.0 | 13 | 32.5 | 4 | 10.0 | 0 | 0.0 | 0 | 0.0 |
| 40 | Coping with academic stresses | 4 | 10.0 | 17 | 42.5 | 12 | 30.0 | 7 | 17.5 | 0 | 0.0 | 0 | 0.0 |
| 43 | Confidence in dealing with future academic challenges | 10 | 25.0 | 19 | 47.5 | 8 | 20.0 | 3 | 7.5 | 0 | 0.0 | 0 | 0.0 |
| 53 | Feels age is an advantage | 10 | 25.0 | 14 | 35.0 | 8 | 20.0 | 5 | 12.5 | 2 | 5.0 | 1 | 2.5 |
| 54 | Manages academic & other commitments | 4 | 10.0 | 19 | 47.5 | 9 | 22.5 | 5 | 12.5 | 3 | 7.5 | 0 | 0.0 |
| **Physical** | | | | | | | | | | | | | |
| 20 | No difficulty in sleeping | 12 | 30.0 | 6 | 15.0 | 12 | 30.0 | 8 | 20.0 | 2 | 5.0 | 0 | 0.0 |
| 32 | Feels in good health | 6 | 15.0 | 23 | 57.5 | 7 | 17.5 | 2 | 5.0 | 2 | 5.0 | 0 | 0.0 |
| 44 | Ability to balance study with paid work | 1 | 2.5 | 11 | 27.5 | 15 | 37.5 | 7 | 17.5 | 6 | 15.0 | 0 | 0.0 |
| 45 | Satisfaction with timetable flexibility for other commitments | 2 | 5.0 | 13 | 32.5 | 9 | 22.5 | 8 | 20.0 | 8 | 20.0 | 0 | 0.0 |

Aside from Item 20, students more frequently indicated "agree" than "strongly agree" to items on the Personal Adjustment scale. A high percentage of neutral responses were also identified, with five of the 11 items showing neutral responses of 30% or above. Responses on Item 2 showed

57.5% agreement or strong agreement to having feelings of tension and nervousness. Over 40% of students indicated concerns about their university expenses (Item 26), with a further 30% giving a neutral response. Just over half of the students showed agreement they were coping with academic stresses (52.5%, Item 40). Items concerning control over their life situation (Item 30) and their ability to manage academic and other commitments (Item 54) revealed slightly lower agreement than Item 53 (age is an advantage in university adjustment) (60%). The strongest agreement (72.5%) was in relation to Item 32, "feels in good health". Forty-five percent of students either agreed or strongly agreed they were not having difficulty sleeping (Item 20). Only 30% of students agreed that they could balance paid work and study (Item 44) and 37.5% agreed with "satisfaction with timetable flexibility for other commitments" (Item 45).

*Attachment*

The Attachment scale, which has no subscales, explored participant feelings about being at university in general and the institution they are attending, (Baker & Siryk, 1989, 1999). This scale (Table 8) relates to feeling part of the first-year cohort, fitting in, meeting people and satisfaction with university life, including the university social culture. Eight of the 11 items in this scale were considered as part of other scales. The three items specific to the Attachment scale included satisfaction with the university culture and transferring, dropping out and deferring university courses.

**Table 8.** Item Analysis for the Attachment Scale

| Item No. | Description | StAgree n | StAgree % | Agree n | Agree % | Neutral n | Neutral % | Disagree n | Disagree % | StDisagree n | StDisagree % | NR n | NR % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Fitting in to the university environment | 5 | 12.5 | 15 | 37.5 | 13 | 32.5 | 7 | 17.5 | 0 | 0.0 | 0 | 0.0 |
| 4 | Meeting & making new friends at university | 4 | 10.0 | 3 | 7.5 | 6 | 15.0 | 17 | 42.5 | 10 | 25.0 | 0 | 0.0 |
| 11 | Satisfaction with decision to attend university | 25 | 62.5 | 9 | 22.5 | 6 | 15.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 17 | Satisfaction with number and variety of courses offered | 6 | 15.0 | 17 | 42.5 | 9 | 22.5 | 6 | 15.0 | 2 | 5.0 | 0 | 0.0 |
| 22 | Feeling at ease with others at university | 2 | 5.0 | 8 | 20.0 | 12 | 30.0 | 12 | 30.0 | 6 | 15.0 | 0 | 0.0 |
| 33 | Prefer to be at university than at home | 20 | 50.0 | 17 | 42.5 | 2 | 5.0 | 1 | 2.5 | 0 | 0.0 | 0 | 0.0 |
| 35 | Not thinking about transferring to another university | 24 | 60.0 | 8 | 20.0 | 3 | 7.5 | 5 | 12.5 | 0 | 0.0 | 0 | 0.0 |
| 36 | Not thinking about dropping out of university | 30 | 75.0 | 8 | 20.0 | 1 | 2.5 | 1 | 2.5 | 0 | 0.0 | 0 | 0.0 |
| 37 | Not thinking about deferring university course | 21 | 52.5 | 8 | 20.0 | 9 | 22.5 | 2 | 5.0 | 0 | 0.0 | 0 | 0.0 |
| 41 | Satisfaction with university social life | 1 | 2.5 | 9 | 22.5 | 8 | 20.0 | 17 | 42.5 | 5 | 12.5 | 0 | 0.0 |
| 50 | Feels part of the first-year cohort | 2 | 5.0 | 6 | 15.0 | 7 | 17.5 | 13 | 32.5 | 12 | 30.0 | 0 | 0.0 |

Responses to Item 11 indicate a high percentage of students agreed/strongly with their decision to attend university (85%). No students disagreed with this item. These responses were supported by very high agreement on Item 33, "prefer to be at university than at home" (92.5%). Items 35, 36, and 37 are exclusive to the Attachment scale. Supporting agreement that they were not thinking of dropping out of university, students were not thinking about transferring to another university (Item 35) (80%), or dropping out of university (Item 36) (95%) or deferring their course (Item 37)

(72.5%). A higher percentage of students indicated strongly agree than agree on Items 33, 35, 36, and 37.

Items associated with social activities showed low agreement. Item 4, which involved meeting and making new friends, Item 41, which related to participation in social activities and Item 50, which examined the degree to which students felt part of the first-year cohort, had agreement scores of 25% or less.

**Discussion**

This study sought to identify how well mature-age students adjusted to university and the factors that affected their adjustment in each of four domains: academic, social and personal adjustment, and attachment to university. Statistical analyses of survey responses of the 40 participants on the 55 survey questionnaire items provided a detailed interpretation of student agreement and satisfaction with items on the four scales of adjustment (Baker & Siryk, 1989, 1999). While the mean Overall Index of Adjustment for participants appears relatively low (49.7 out of 84 or 59.2%), a low adjustment score does not mean successful adjustment has not occurred. Features of adjustment in specific domains can be obscured by the exclusive consideration of the overall score. A more comprehensive account of university adjustment includes attention to the individual scales and subscales, which contribute to overall adjustment and to the scale of Academic Adjustment, which was not included in the Overall Index of Adjustment.

Students' Academic Adjustment is an important part of overall adjustment to university. Successful Academic Adjustment, demonstrated through student performance and achievement, is necessary in achieving progress towards a tertiary qualification. Results from the present study indicate that a number of factors contribute to students' Academic Adjustment, including the acquisition of essential academic skills and academic expectations, motivation, application, and success.

Supporting the findings of McInnis and James (1995), Kantanis (2002), Bird and Morgan (2003) and Ayres and Guilfoyle (2009), student responses on the survey questionnaire demonstrated a positive adjustment in the domain of Academic Adjustment, especially in their ability to manage the demands of study and in their motivation and application to their work.

The social support of friends can ease adjustment, not only in providing access to the social culture, but also in forming networks to support academic progress (Mallman & Lee, 2014; Tinto, 1997).

Adjustment to the university social culture has implications for social support, relationships, and companionship (Kantanis, 2002). Survey responses showed low agreement on items relating to Social Adjustment relative to the other three scales. Responses relating to relationships with other people revealed the lowest agreement in the Social Adjustment scale with fewer than 20% of participants considering they had made close ties at university. Dissatisfaction focused on a lack of involvement in social activities and a limited university social life, although participants acknowledged having sufficient social skills to get along at university. This highlights the difficulties mature-age students found in forming relationships with other students, particularly those younger than themselves.

The academic demands of tertiary study have implications for changes in employment situations and adjustments in domestic responsibilities. Finding the appropriate balance can be challenging for all first-year students (Barker & Fabian, 2009; Kantanis, 2002), but the particular responsibilities of mature-age students, including dependent children, ageing parents and employment commitments have consequences for the amount of time students can devote to study or spend on campus (Cushman, 2004; Drury et al., 2008). Twenty-three of the 40 participants reported feelings of tension and nervousness, some of which related to their expenses and balancing paid work and study. The importance of Personal Adjustment, in terms of coping with academic stresses and managing their academic and other commitments cannot be underestimated in relation to its subsequent effect on both Social and Academic Adjustment.

The formation of positive connections can promote a sense of belonging and commitment (Baker & Siryk, 1989, 1999; Educational Transitions & Change Research Group, 2011), while a lack of attachment can undermine the sense of purpose and belonging necessary for a smooth transition, resulting in poor academic and social integration (McInnis & James, 1995; Pascarella & Terenzini, 1991). Survey responses showed agreement above 70% with items relating to not dropping out, not deferring, not changing universities and preferring to be at university than at home; however, participants showed less agreement with items associated with social activities, meeting and making new friends and feeling part of the first-year cohort.

Contrary to the findings of Baker and Siryk (1989, 1999), who found students had higher scores on Social Adjustment and Attachment, the current study identified higher scores on Personal and Academic Adjustment. Supporting the findings of McInnis and James (1995), Kantanis (2002), Bird and Morgan (2003) and Ayres and Guilfoyle (2009), this study demonstrated mature-age students had high levels of agreement with items relating to Academic Adjustment, especially in relation to student motivation, application, and their ability to manage the demands of study.

The academic demands of tertiary study have implications for changes in employment situations and adjustments in domestic responsibilities. The need to find a balance between academic study and paid employment was highlighted in item responses on the Personal Adjustment scale, supporting the findings of Drury et al., (2008), Cushman (2004) and Kerr, Johnson, Gans and Krumrine (2004), who noted the impact of changes in employment situation and family responsibilities on university transition and adjustment.

As a group, participants had low scores on the Attachment scale. Feelings of belonging and being valued have been shown to help students move through the transition period more quickly (Ayres & Guilfoyle, 2009). Students who have an attachment and who feel connected to the institution and its occupants are less likely to withdraw than those who feel isolated or disconnected (Darlaston-Jones, Cohen, Haunold, Pike, Young, & Drew, 2003; Peel, 1999; Tinto, 1995).

**Limitations**

A limitation of the study was the size of the sample. Forty students participated in the survey questionnaire. The relatively small number of mature-age students enrolled at the university and ethical issues prevented approaching potential participants directly. The study did not provide a broad or diverse demographic group since the research was carried out with students enrolled at only one university. Students enrolled in other universities may have different experiences of

transition and adjustment. The study was only performed in the students' first year of study. Surveying students in later years of their courses and those who had deferred or discontinued would provide additional information about students' transition and adjustment to university. The reasons for enrolling in university as an older student were not investigated. It is possible that the motivations that inspired students to commence tertiary education later than most first-year students may have influenced their experiences of transition and subsequent adjustment to university.

The challenge of accessing the social culture of the university for mature-age students is evident in this study, with associated risks of dropping out, deferring, changing courses or changing universities as indicated by McInnis and James (1995) and Baker and Siryk (1989, 1999). The implications for students' Personal Adjustment concerns, such as life/university balance and financial issues, are evident in the additional responsibilities many mature-age students must negotiate as part of their decision to commence university.

## Conclusions

To fully understand the transition and adjustment of all first-year, undergraduate students to university, an appreciation of the experiences of under-represented demographic groups within the first-year cohort must be determined so that programs and services are inclusive of all students. The significance of the experiences of mature-age students is their representation of a small but increasing proportion of students in first-year, undergraduate courses. Student perceptions of their new environment are important in gaining an understanding of the issues and needs of the diverse groups of students enrolling in tertiary education (Cushman, 2004; Gall, Evans, & Bellerose, 2000), and subsequently supporting the academic progress, personal adjustment, and social requirements of current and future students of all demographic groups (Ayres & Guilfoyle, 2009).

Although they had high measures of academic adjustment, the mature-age students in this study had lower measures of social and personal adjustment. This places mature-age students at increased risk of not adjusting to university (Ramsay et al., 2007) and of dropping out (Krumrei-Manuso et al., 2013). It is imperative that tertiary institutions identify and address the requirements of mature-age students as an important subgroup of all first-year students, particularly in terms of their social and personal adjustment. Consideration of current orientation and induction programs and university support services to ensure they meet the needs of mature-age students will enhance the experience of transition for the group of first-year students and increase the prospect of a positive adjustment for more first-year students to university.

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