

Student adaptability and achievement on a psychology conversion course

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Adaptability refers to an individual's cognitive, behavioural, and emotional adjustment in the face of novel, changing, or uncertain situations. A growing literature has demonstrated the influence of adaptability on students' academic outcomes at primary, secondary level, and more recently, tertiary levels; however, its influence on students' academic outcomes on postgraduate psychology conversion courses – who are typically transitioning back into education and focusing on a different academic discipline – has yet to be examined. In this study, students enrolled on a postgraduate psychology conversion course in higher education were assessed for their adaptability, academic motivation, and academic background in semester 1. Their academic achievement (grade point average) was then obtained from the Student Records System, along with demographic information at the end of semester 3 upon course completion. Bivariate (zero order) correlation analyses revealed that only adaptability and disability status were significantly associated with academic achievement. A multiple regression analysis revealed that adaptability was the strongest predictor of academic achievement. These findings have important implications for researchers and educators seeking to understand students' adjustment to university – and postgraduate psychology conversion courses in particular – and its influence on academic outcomes.

Keywords: *adaptability; achievement; university; psychology.*

PSYCHOLOGY conversion courses are becoming increasingly popular, with 161 accredited psychology conversion courses being offered in the UK alone. These courses typically appeal to students who wish to pursue an academic or professional career in psychology but either do not have a first degree in psychology, or the eligibility for Graduate Basis for Chartered Membership (GBC) from the British Psychological Society. This is a major life transition for most students. From our own general observations through teaching practice and the data contained herein, this typically involves a return to education from some time away (these courses tend to attract more mature students), heightened demands on study time (students are often employed alongside their studies and have more significant family commitments), and the challenge of studying a new scientific discipline (psychology) that may have very little connection to their prior study (students are often accepted onto the course based on degree level rather than subject). Thus, for students wishing to undertake

a postgraduate psychology conversion course, it is a time of immense change. The extent to which students are able to adjust in order to successfully navigate this change will likely influence their academic outcomes (Nightingale et al., 2013). In the present study, we investigate this by focusing on students' entry-level adaptability (that is, an individuals' cognitive, behavioural and emotional adjustment in the face of novel, changing or uncertain situations, Martin et al., 2012, 2013) and examine the extent to which this can predict their overall academic performance.

Adaptability, as a construct, is firmly rooted in a number of theoretical approaches, such as the 'self-regulation framework' (Zimmerman, 2002) and the associated 'tripartite model of adaptability' (see Martin et al., 2012, 2013) whereby cognitions (thoughts), behaviours (actions), and emotions (affect) are self-managed or regulated (i.e. monitored, controlled, and directed) in order to respond effectively to the demands of the environment. This ability to self-regulate and adapt allows individuals

to successfully navigate new situations and adjust (regulate) their behaviours accordingly. This may be particularly important for university students, whereby the likelihood of failure is heightened when they undertake new tasks, experience major transitions, and are faced with change or uncertainty (see Jones, 2008). To achieve high levels of adaptability, this requires the regulation of 'cognitions', which involves adjusting their thinking in situations of change, novelty and uncertainty (e.g. thinking about a situation in different ways to find an effective response), 'behaviours' which involve adjusting their actions under these circumstances (e.g. trying new actions such as seeking help or different resources), and 'emotions' which involves adjusting their affect under these circumstances (e.g. downregulation of negative emotions such as anxiety or frustration, upregulation of positive emotions such as enjoyment). Taken together, this grounding in different theoretical approaches provides a conceptual basis for adaptability and implies possible connections between students' adaptability and their academic development.

Research has shown that adaptability does play an increasingly important role in students' academic development. These effects have been demonstrated not only at secondary (Burns et al., 2017; Collie et al., 2016; Martin et al., 2012, 2013, 2015) but also tertiary level (Collie et al., 2017; Holliman, Martin et al., 2018; Johnson et al., 2015) with adaptability being one of the strongest predictors of academic achievement scores among undergraduate students (Holliman, Sheriston et al., 2018). Furthermore, there is evidence to suggest that when university/college students are more adaptable, they show higher levels of course satisfaction (Holliman, Sheriston et al., 2018). Higher adaptability can also lead to stronger academic engagement (e.g. Burns et al., 2017; Collie et al., 2017; Holliman, Martin et al., 2018; Martin et al., 2012, 2013, 2015). That is, more adaptable students report lower negative engagement

(i.e. self-handicapping, where students take actions to reduce their chances of academic success so that they have an excuse for any poor academic outcomes, and disengagement, where students care less about their education or feel like giving up in their efforts), and in turn lower negative engagement is associated with higher achievement and greater likelihood of course completion (Burns et al., 2017; Martin et al., 2012, 2013, 2015). Taken together, the evidence seems to suggest that higher levels of adaptability might encourage the adoption and application of suitable strategies which can allow students to produce more positive outcomes within an educational context.

However, despite the importance of adaptability on academic achievement, previous studies have focused on secondary or tertiary (undergraduate) students. In contrast, there is little, if any, empirical work that evaluates the impact of adaptability on academic achievement among postgraduate degree students, especially those enrolled on postgraduate conversion courses. Arguably, adaptability is most pertinent to those students studying postgraduate (psychology) conversion courses, not least given the financial and intellectual costs associated with course completion (Grebennikov & Shah, 2012), but the importance of achieving their career aspirations and showing career adaptability (Negru-Subtirica & Pop, 2016) and adjusting to a new academic discipline. Furthermore, given that psychology conversion courses are open to students from a range of different disciplines and often attract more mature students who are managing other demands and possibly returning to education after significant time away, then 'adaptability' might play a significant role in their academic outcomes.

To address this issue, the present study explores whether university students' adaptability is associated with their academic achievement on a taught postgraduate psychology conversion course, and whether any observed associations remain after

controlling for the influences of other predictor variables.

Method

Participants and procedure

All participants in this study ($N = 26$) were opportunistically sampled from a single higher education institution (university) in the West Midlands, UK. Students were enrolled on a postgraduate psychology conversion course (MSc Psychology). The sample were mostly female (92 per cent – in line with our expectations and the available data, Universities & Colleges Admissions Service, UCAS, 2016), students were aged between 21 and 50 years ($Mean = 34.33$; $SD = 9.68$), and three students (11 per cent) disclosed some form of disability (dyslexia [$N = 2$]; dyslexia and long-standing illness [$N = 1$]). The selection criteria were not limited to any particular demographic or ability group; all students on the above course were invited to participate in this research.

Ethical approval was obtained by the University's Research Ethics Committee. Participant information sheets and informed consent forms were distributed to students in a large lecture theatre during one of the mandatory sessions on the course in Semester 1. The full nature and objectives of the study were explained to participants and written consent was taken prior to data collection. Participants were reassured of the confidentiality of their responses and their right to withdraw from the study with no penalty or effects. Participants who agreed to take part then completed a paper questionnaire to measure the core constructs in this study (i.e. adaptability, academic motivation, and academic background). At the end of the course, students' academic achievement scores (grade point average) were extracted from the Student Records System, along with demographic information (i.e. those details provided previously in this section).

Measures

Adaptability

The Adaptability Scale (Martin et al., 2013) was used to provide an assessment of students' cognitive, behavioural and emotional adapt-

ability. Using a Likert scale response format, respondents rated themselves on a scale of 1 (strongly disagree) to 7 (strongly agree) against nine items (three items for each of cognitive, behavioural and emotional adaptability). In keeping with prior theorising and measurement work (e.g. Martin et al., 2012, 2013) the three types of adaptability (tripartite approach) were combined and averaged to provide a single estimate of adaptability. Prior research has also demonstrated the validity of the scale via confirmatory factor analysis and adequate reliability (e.g. Collie et al., 2017; Martin et al., 2012, 2013, 2015). In this study, Cronbach's alpha was .94.

Academic motivation

The Academic Motivation Scale, AMS-C 28 – College CEGEP version (Vallerand et al., 1993) was used to provide an assessment of students' internal (intrinsic) motivation, external (extrinsic) motivation, and amotivation. Using a Likert scale response format, respondents rated themselves on a scale of 1 (does not correspond at all) to 7 (corresponds exactly) against 28 items (12 items for each of internal and external motivation, and 4 for amotivation). To obtain a single estimate of students' perceived self-determination, the Relative Autonomy Index (RAI; Ryan & Connell, 1989), also known as the Self-Determination Index (Vallerand, 2007), was used adopting the RAI BREQ scoring protocol (Ryan & Connell, 1989). Here, higher positive RAI scores correspond with a greater autonomous regulatory style (i.e. self-determined motivation) and higher negative scores correspond with a greater controlled regulatory style (i.e. non-self-determined motivation). Prior research has demonstrated the validity of the scale (e.g. Vallerand et al., 1989). In this study, Cronbach's alpha was .86.

Academic achievement

Grade Point Average data (the most widely used method to assess educational performance) were collected via a Student Records System, which contains detailed

records of student profiles (personal and performance). These marks are carefully checked and verified, thus providing a reliable way to access students' academic scores. At the participating institution, on this course, an overall mark (out of 100) was obtained where a score of below 40 is considered a 'fail', 42–48 and 52–58 considered a pass (but with the former not providing eligibility for Graduate Basis of Chartered Membership with the British Psychological Society), 62–68 considered a 'Pass with merit', and 72 or above considered a 'Pass with distinction'.

Demographics and academic background

The Student Records System was also consulted to gather demographic data (i.e. age, gender, disability status, noted previously). To obtain details of prior study, purely for exploratory purposes, students were also asked to respond to a single question in each case to confirm:

- i. the number of years since their previous degree;
- ii. their previous degree classification (1st, 2:1, 2:2);
- iii. their degree type (arts or science).

Results

Descriptive statistics

Table 1 shows descriptive and reliability statistics for the core variables in this study.

Reliabilities for adaptability and academic motivation were acceptable, with all alphas $\geq .86$. For the measure of academic achievement, equated performance was in the 'pass with merit' range, which was generally expected at this stage of study. The mean adaptability scores were generally in the upper range indicating that students felt somewhat in agreement that they were able to adapt in the face of novel or uncertain events. The mean motivation scores indicate that students' perceived regulatory styles were more autonomous (self-determined motivation) than they were controlled (non-self-determined motivation), with a moderate standard deviation indicating that there was some variation. Regarding academic background, it can be seen that most students obtained their degree over a decade ago, most completed an arts degree (67 per cent), and nearly three-quarters obtained a 2:1 classification (71 per cent).

Table 1: Descriptive statistics for study variables

	Mean (or %)	Std. Dev.	α
GPA	63.63	15.97	-
Adaptability	5.27	1.02	.94
Motivation	3.13	3.66	.86
Age	34.33	9.68	-
Gender: Males / Females	8% / 92%	-	-
Disability: No / Yes	89% / 11%	-	-
Years Since Previous Degree	11.05	9.09	-
Prior Degree Class: First / 2:1 / 2:2	13% / 71% / 16%	-	-
Degree Type: Arts / Science	67% / 33%	-	-

Note: Cronbach's alpha for adaptability above, is the alpha across the whole scale. Cronbach's alpha for each type (subscale) of adaptability was as follows: cognitive .76; behavioural .80; emotional .84. Cronbach's alpha for Motivation above, is the average alpha across the different subscales. Cronbach's alpha for each individual subscale was as follows: internal (intrinsic) motivation subscale was .72 – to know); .87 (– toward accomplishment); .80 (– to experience stimulation); for external (extrinsic) motivation was: .77 (– identified); .84 (– introjected); .85 (– external regulation); and amotivation was .36.

Table 2: Bivariate correlations (Pearson) between variables

Variables	1	2	3	4	5	6	7	8
1. GPA								
2. Adaptability	.41*							
3. Motivation	.27	.44*						
4. Age	-.04	.15	.29					
5. Gender	-.05	.22	.44*	.07				
6. Disability	-.40*	-.07	-.15	.17	-.35			
7. Years Since Degree	-.01	.18	.30	.93***	.17	.16		
8. Prior Degree Class	.04	.06	.06	.06	.02	-.03	.12	
9. Degree Type	.25	.44*	.05	-.23	.23	-.20	-.09	.29

Note: Gender was scored from 0 (Male) to 1 (Female); Disability was scored from 0 (No) to 1 (Yes); Prior degree class was scored from 0 (2:2) to 1 (2:1) to 2 (First); Degree type was scored from 0 (Art) to 1 (Science). * $p < .05$; ** $p < .01$

Bivariate correlations

To investigate the bivariate relationships between all core variables in this study, correlation analyses (Pearson) were performed to ascertain the strength of relations among variables (see Table 2).

It can be seen from Table 2 that adaptability was significantly correlated with academic achievement ($r = .413, p = .037$), suggesting that students who felt they were more able to adjust (cognitively, behaviourally, an emotionally) in the face of change, novelty and uncertainty were able to achieve higher marks on the course. The only other significant correlate of academic achievement was disability status ($r = -.395, p = .046$), suggesting that students with a registered disability are less likely to achieve higher marks. Adaptability and academic motivation were significantly positively correlated ($r = .436, p = .026$) and, interestingly, adaptability was also significantly positively correlated with prior degree type ($r = .444, p = .044$) suggesting that those who completed a science rather than arts degree were more likely to be adaptable.

Predictors of academic achievement

The previous analyses showed that only two variables – university students’ adapt-

ability and disability status – were significantly related to their academic achievement (grade point average). To examine whether these can account for a significant amount of unique variance in academic achievement (after controlling for the other) a multiple regression analysis was used. Preliminary analyses ensured that data met assumptions for multiple regression, including homogeneity of variance and linearity. Collinearity statistics were run and the variance inflation factor and tolerance statistics confirmed that multicollinearity was not an issue. Adaptability and disability status were entered together in the same step as predictors of academic achievement.

The regression model, which accounted for 31 per cent of the overall variance, showed that adaptability was the strongest unique predictor of students’ university academic achievement, $\beta = .388, t(23) = 2.231, p = .036$. However, students’ disability status was also found to make a smaller but significant independent contribution, $\beta = -.370, t(23) = -2.124, p = .045$.

Discussion

The present study sought to explore whether university students’ adaptability is associated

with their academic achievement on a postgraduate psychology conversion course, and whether any observed associations remain after controlling for the influences of the other predictor variables. It was found that adaptability (and disability status to a lesser extent) accounted for significant unique variance in academic achievement. The current finding that disability predicted academic achievement scores suggests that students with a registered disability are less likely to achieve higher marks which may have important implications for issues around student transition, widening participation, and employability (see Jones, 2008).

The current work, furthermore, adds to a growing body of research demonstrating the importance of adaptability on students' overall academic achievement (Burns et al., 2017; Collie et al., 2017; Holliman, Martin et al., 2018; Holliman, Sheriston et al., 2018; Martin et al., 2012, 2013, 2015) and extend it to those completing a postgraduate conversion course. There were significant relations between adaptability and academic motivation as well as academic achievement. Furthermore, while adaptability and academic motivation were positively correlated, only adaptability could uniquely predict students' academic achievement (based on their overall grade point average). This provides a strong indication that students who felt they were more able to adjust (cognitively, behaviourally and emotionally) in the face of change, novelty and uncertainty were able to achieve higher marks on the postgraduate conversion course. Although academic motivation was not linked to academic achievement, it is possible that those students enrolled on the conversion course already had strong motivations and specific career intentions, which may account for this finding. The proposed link between adaptability and academic achievement is likely to occur because adaptable students are better at self-regulating their responses, which is crucial for academic performance (Johnson et al., 2015). That is, postgraduate students are likely to self-regulate (i.e. monitor, control, direct

and adjust [adapt]) their cognitions, behaviours and emotions to more effectively deal with the task at hand (Martin et al., 2012, 2013), which in turn affects their academic outcomes (Mega et al., 2014).

Despite finding significant associations between adaptability and academic achievement, there are some limitations that may be considered in future studies. First, the current study had a relatively small sample size and diminished statistical power, thus limiting the generalisability of the findings. Second, while most measures were taken from a Student Records System – which contains detailed records of student profiles that are carefully checked and verified – some of the variables were assessed using self-reports measures. This study also did not consider the effects of other covariates such as academic buoyancy (students' ability to successfully navigate lower-level academic setbacks, challenges, adversities, and pressures, Martin, 2013; Martin et al., 2013) or course satisfaction scores (Crosling et al., 2009; Martin et al., 2012, 2015) on academic achievement. Future research might therefore consider the use of longitudinal designs with multiple (and mixed) assessments at different time points combining a broader selection of criteria to fully assess the unidirectional predictors of academic achievement among a range of different postgraduate degree programmes, including those on conversion courses and other master's degree programmes (Pekrun et al., 2017).

From a practical application perspective, these findings may have the potential to advance knowledge of how postgraduate conversion-degree students manage the new demands they face. Given that adaptability is an alterable construct (van Rooij et al., 2017), then there are practical applications to help support those students enrolled on psychology conversion courses to achieve their desired academic outcomes. For instance, adaptability could be measured as part of a screening tool to identify potential students who struggle to show adjustment to change. Once identified, awareness/training

could be developed with an intention of providing adaptability-based interventions to those who are struggling to adjust to the new academic requirements of a psychology conversion course. Such interventions might focus on adjusting one's cognitions, behaviours and emotions enabling the student to respond more positively and constructively to situations of change, novelty, and uncertainty, by implication, improving their academic achievement (Martin et al., 2013). Specifically, from an instructional level, setting more realistic expectations of the potential challenges that students may face when transitioning onto psychology conversion courses allowing them to manage their cognitions, behaviours, and emotions more effectively. However, more research is required to guide the content and development of adaptability interventions for use with students particularly within the context of higher education.

In summary, similar to past studies with undergraduate degree students (Collie et al., 2017; Holliman, Martin et al., 2018; Holliman, Sheriston et al., 2018), adaptability was found to be significantly associated with students' academic achievement on a postgraduate psychology conversion course.

References

- Burns, E.C., Martin, A.J. & Collie, R.J. (2017). Understanding the role of adaptability and personal best (PB) goals in students' academic outcomes: A social cognitive perspective. *British Journal of Educational Psychology Monograph Series, II*, 12, 111–131.
- Collie, R.J., Holliman, A.J. & Martin, A.J. (2017). Adaptability, engagement and academic achievement at university. *Educational Psychology*, 37(5), 632–647. doi:10.1080/01443410.2016.1231296
- Collie, R.J., Martin, A.J. & Curwood, J.S. (2016). Multidimensional motivation and engagement for writing: Construct validation with a sample of boys. *Educational Psychology*, 36, 771–791. doi:10.1080/01443410.2015.1093607
- Crosling, G., Heagney, M. & Thomas, L. (2009). Improving student retention in higher education: Improving teaching and learning. *Australian Universities Review*, 51(2), 9–18.
- The findings have important theoretical and practical implications for educators seeking to understand students' adjustment to postgraduate study – and conversion courses in particular – and the influence this may have on their achievement.

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Grebennikov, L. & Shah, M. (2012). Commencing student experience: new insights and implications for action. *European Journal of Higher Education*, 2(2-3), 267–289. doi:10.1080/21568235.2012.683663

Holliman, A.J., Martin, A.J. & Collie, R.J. (2018). Adaptability, engagement, and degree completion: A longitudinal investigation of university students. *Educational Psychology*, 1–15. doi:10.1080/01443410.2018.1426835

Holliman, A.J., Sheriston, L., Martin, A.J. et al. (2018). Adaptability: Does students' adjustment to university predict their mid-course academic achievement and satisfaction? *Journal of Further and Higher Education*. doi: 10.1080/0309877X.2018.1491957

Johnson, M.L., Taasobshirazi, G., Kestler, J.L. & Cordova, J.R. (2015). Models and messengers of resilience: A theoretical model of college students' resilience, regulatory strategy use, and academic achievement. *Educational Psychology*, 35, 869–885. doi:10.1080/01443410.2014.893560.

- Jones, R. (2008). *Widening Participation/student retention and success, research synthesis for the higher education academy*. Retrieved 21 June 2017 from www.heacademy.ac.uk/observatory/themes/widening-participation/observatory/summary/detail/student_retention_and_success
- Martin, A. J. (2013). Academic buoyancy and academic resilience: Exploring 'everyday' and 'classic' resilience in the face of academic adversity. *School Psychology International*, *34*(5), 488–500. doi:10.1177/0143034312472759
- Martin, A.J., Nejad, H., Colmar, S. & Liem, G.A.D. (2012). Adaptability: Conceptual and empirical perspectives on responses to change, novelty and uncertainty. *Australian Journal of Guidance and Counselling*, *22*, 58–81. doi:10.1017/jgc.2012.8
- Martin, A.J., Nejad, H.G., Colmar, S. & Liem, G.A.D. (2013). Adaptability: How students' responses to uncertainty and novelty predict their academic and non-academic outcomes. *Journal of Educational Psychology*, *105*, 728–746. doi:10.1037/a0032794
- Martin, A.J., Nejad, H.G., Colmar, S. et al. (2015). The role of adaptability in promoting control and reducing failure dynamics: A mediation model. *Learning and Individual Differences*, *38*, 36–43. doi:10.1016/j.lindif.2015.02.004
- Mega, C., Ronconi, L. & De Beni, R. (2014). What makes a good student? How emotions, self-regulated learning, and motivation contribute to academic achievement. *Journal of Educational Psychology*, *106*(1), 121–131. doi:10.1037/a0033546
- Negru-Subitirica, O. & Pop, E.I. (2016). Longitudinal links between career adaptability and academic achievement in adolescence. *Journal of Vocational Behavior*, *93*, 163–170. doi:10.1016/j.jvb.2016.02.006
- Nightingale, S.M., Roberts, S., Tariq, V. et al. (2013). Trajectories of university adjustment in the United Kingdom: Emotion management and emotional self-efficacy protect against initial poor adjustment. *Learning and Individual Differences*, *27*, 174–181.
- Pekrun, R., Lichtenfeld, S., Marsh, H.W. et al. (2017). Achievement emotions and academic performance: Longitudinal models of reciprocal effects. *Child development*, *88*(5), 1653–1670. doi:10.1111/cdev.12704
- Ryan, R.M. & Connell, J.P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality & Social Psychology*, *57*, 749–761. doi:10.1037/0022-3514.57.5.749
- Universities & Colleges Admissions Service (2016). *End of cycle 2015 data resource*. Retrieved 28 June 2018 from www.ucas.com/sites/default/files/eoc_data_resource_2015-dr3_019_01.pdf
- Vallerand, R.J. (2007). A hierarchical model of intrinsic and extrinsic motivation for sport and physical activity. In M.S. Hagger & N. Chatzisarantis (Eds.) *Self-determination theory in exercise and sport* (pp.255–280). Champaign, IL: Human Kinetics.
- Vallerand, R.J., Blais, M.R., Brière, N.M. & Pelletier, L.G. (1989). Construction and validation of the Motivation Toward Education Scale. *Canadian Journal of Behavioural Science Revue Canadienne*, *21*, 323–349. doi:10.1037/h0079855
- Vallerand, R.J., Pelletier, L.G., Blais, M.R. et al. (1993). On the assessment of intrinsic, extrinsic, and amotivation in education: Evidence on the concurrent and construct validity of the Academic Motivation Scale. *Educational & Psychological Measurement*, *53*: 159–172. doi:10.1177/0013164493053001018
- Van Rooij, E.C.M., Jansen, E.P.W.A. & Van de Grift, W.J.C.M. (2017). Secondary school students' engagement profiles and their relationship with academic adjustment and achievement in university. *Learning and Individual Differences*, *54*, 9–19. doi:10.1016/j.lindif.2017.01.004
- Zimmerman, B.J. (2002). Achieving self-regulation: The trial and triumph of adolescence. In F. Pajares & T. Urdan (Eds.) *Academic motivation of adolescents* (pp.1–27). Greenwich, CT: Information Age Publishing.