ePrints

**Schartner A, Young TJ.**

**Towards an integrated conceptual model of international student adjustment and adaptation.**

*European Journal of Higher Education* 2016, 6(4), 372-386.

**Abstract**

Despite a burgeoning body of empirical research on 'the international student experience', the area remains under-theorised. The literature to date lacks a guiding conceptual model that captures the adjustment and adaptation trajectories of this unique, growing and important sojourner group. In this paper we therefore put forward a conceptual model of international student adjustment and adaptation which integrates theory and recent empirical research exploring the academic, psychological and sociocultural aspects of and influences on the experience of study abroad. The article discusses, from an intercultural and educational research perspective, contributory factors to international student adjustment. It also details the theoretical background underpinning the model. We conclude by showing how the proposed integrated model can serve as a heuristic tool for international students and higher education practitioners, and we discuss its implications for practice and application. We also show how it can serve as a reference point for a research agenda.

**Introduction**

Over 4 million students are studying for a higher education (HE) degree abroad, representing 2 in 100 students globally (UIS 2013). These 'degree-seeking mobile students' are a unique sub-group of cross-cultural sojourners[1]. Not only do they face the challenges associated with moving to a new country, they also have to adjust to a new education system and a new level of study. This 'triple transition' (Jindal-Snape and Ingram 2013) clearly differentiates them from other groups of cross-cultural sojourners such as business expatriates, and indeed students on short-term exchange programmes (i.e. credit-mobile students). Although they are one of the most-researched groups of cross-cultural sojourners (Zhou et al. 2008), their specific experiences are strikingly absent from most of the prevailing conceptual models in the acculturation literature. The purpose of this paper is therefore to put forward a guiding conceptual model that adequately captures the adjustment and adaptation of this unique sojourner group.

There are several reasons why a model of this kind is needed. Firstly, conceptual models in the acculturation literature are, by and large, more specific to the experiences of longer-term settlers such as migrants or refugees (see a review by Smith and Khawaja 2011). We argue that a 'one size fits all' model cannot adequately account for the unique circumstances of degree-seeking mobile students, which are inherently different from those of other sojourner groups. Secondly, there is a lack of integration of theories on the psychology of intercultural contact and research on the adjustment and adaptation of degree-seeking mobile students. The burgeoning research literature exploring the adjustment of these students has tended to distinguish between psychological, sociocultural and academic adjustment, with studies in these three areas usually pursued separately (Zhou and Todman 2009). In our model we therefore put forward a more holistic perspective, integrating a broad range of contributory and outcome factors from across these three domains of enquiry. Thirdly, there is currently a lack of understanding of the interrelationships between the three adjustment domains (Zhou et al. 2008). Academic achievement[2] is a key performance outcome for degree-seeking mobile students (Spencer-Oatey and Xiong 2006), yet we still know little about how psychological and sociocultural adjustment enhance or impede academic success.

---

[1] A sojourn is generally understood as a temporary stay abroad for a specific purpose (Ward et al. 2001).

[2] According to Andrade (2006), academic achievement refers to evidence of learning, which may be measured by successful completion of course requirements and grade point averages (GPAs)

Our model aims to fulfil three needs:

(1) To provide an organising framework for the synthesis of a burgeoning body of research on international student adjustment and adaptation

(2) To provide a template which researchers can use to design future studies

(3) To provide a heuristic for practitioners working in the internationalised university, and for 'home' and 'international' students

It comes at a critical point in time – as internationalisation agendas are changing, attention is increasingly being paid to the 'student experience' (Ertl and Wright 2008) and many HE institutions are striving to achieve a 'student-centred ethos' (Quinlan 2014). If universities are to provide a high quality and equitable teaching and learning experience for all students, including those who are 'international', it is vital to understand the adjustment experiences of this student group. A conceptual model, which can provide a frame of reference for researchers and practitioners working in the internationalised university, is thus timely.

We start below by introducing the model. We then detail the data that led to its development, before detailing the broader underpinning theoretical background. We then discuss contributory factors to international student adjustment commonly identified in the literature. We end with a discussion of implications for practice and an agenda for future research.

**The model**

Our model is presented in Figure 1 below. It is informed by two recent empirical studies conducted by the authors on the adjustment and adaptation of international students pursuing one-year MA degrees in the United Kingdom (UK) (detailed below), but it also synthesises other empirical work carried out elsewhere. It adopts a micro-level approach, with the individual student sojourner and her/his intra- and interpersonal experiences at the centre of enquiry (Kim 2001). Moreover, in order to capture the full temporal range of the 'international student experience' it distinguishes between contributory factors that exist prior to the sojourn (pre-sojourn factors) and those that develop during the sojourn (in-sojourn factors) (Berry 2006b). In response to some terminological ambiguity in the cross-cultural sojourner literature (Matsumoto and Hwang 2013), it makes a clear conceptual distinction between 'adjustment' and 'adaptation', with the former reflecting a process (i.e. the experience of change), and the latter reflecting outcomes of this process. This distinction between processes and outcomes can aid researchers in the design of longitudinal mixed-

methods studies which, to date, are fairly uncommon in the international student adjustment literature (see Zhang and Goodson 2011). From a methodological perspective 'adjustment' can be monitored over time using qualitative methods of enquiry, whilst 'adaptation' can be measured using a range of outcome indices, such as for example academic grades (cf. Author and Author 2014).

*(Insert Figure 1 near here)*

### Adjustment domains

Following Ward et al. (2001), we distinguish between psychological and sociocultural adjustment (Figure 1). Psychological adjustment is understood as affective responses to the new environment, including psychological wellbeing and satisfaction with life, with the former reflecting the affective dimension of psychological adjustment and the latter reflecting a more cognitive dimension (Sam 2000). Sociocultural adjustment, on the other hand, is conceptualised as cognitive and behavioural factors associated with effective performance in the host country, such as the ability to 'fit in' and interact successfully with others. However, our model aims to capture adjustment beyond the purely psycho-social. We therefore include a third adjustment domain which is of particularly high salience to international students – academic adjustment, defined as adjustment to the specific demands of academic study including styles of teaching and learning at the host university (Ryan 2005). The three domains are presented as intertwined processes (Figure 1), following recent research that has shown significant associations between them (e.g. Jindal-Snape and Ingram 2013; Author 2014).

Difficulties in all three adjustment domains have been found to be greatest in the early sojourn stages when students are least familiar with the host environment, and when they are faced with the most immediate life changes while coping resources and social support are still limited (Ward et al. 2001; Brown 2008; Author 2014). However, longitudinal research has shown that, as the sojourn progresses, academic, psychological and sociocultural adjustment tend to follow different patters over time. Academic and sociocultural adjustment have been found to follow a fairly linear ascending curve, indicating relatively steady improvement over time (Brown 2008; Author and Author 2014), although it may not progress at the same rate for all students (Coles and Swami 2012; Wright and Author 2013). In contrast, psychological adjustment has been found to remain more variable, with external factors periodically impacting on student wellbeing, including aspects such as the weather and degree of

academic workload (Ward et al. 2001; Author 2014).

***Empirical background to the model***

Two recent studies conducted by the authors form the empirical foundation of this model, as detailed below (Table 1). Both studies employed a mixed-methods design of self-report surveys and individual semi-structured interviews. This allowed us to investigate (a) associations between a broad range of contributory factors and outcome indices of adaptation, and (b) students' 'lived' experiences of adjustment over time. Correlation analyses and multiple and single regression analyses using the enter method were conducted to investigate associations between contributory factors and outcome indices. Thematic analysis (Braun and Clarke, 2006) was conducted to analyse the interview transcripts.

*Study 1*

Our initial research interest was in factors associated with the successful adjustment of international students to life and study overseas. This led to an exploratory mixed-method study (Author et al. 2013) of 108 international students undertaking one-year postgraduate taught MA programmes in the UK. Participants completed a self-report survey in December of the year of study (N=102), and three waves of interviews were conducted with a further sample of students (N=6). Findings from study 1 indicated strong associations between students' academic achievement, satisfaction with life in the new environment and psychological well-being (outcome factors), and aspects of their intercultural competence, contact with non-co-nationals, including hosts, and with their language proficiency (contributory factors). The interviewees all reported a sense of generally successful adjustment to the new academic and sociocultural environment over time.

*Study 2*

Findings from study 1 led to a more extensive follow-on study of 226 international students undertaking one-year postgraduate taught MA degrees in the UK (Author 2014). In light of the predominance of cross-sectional studies in much of the prevailing literature (Zhang and Goodson 2011), study 2 investigated students' adjustment and adaptation over their entire programme of study and included a measure of sociocultural adaptation. Participants (N=224) completed a self-report study in October and June of the year of study, and three waves of interviews were conducted with a sub-sample of students (N=20)[3]. The findings

---

[3] Two interviewees were not part of the larger survey sample.

indicated significant associations between the contributory factors and the outcome indices over time, as well as showing substantial overlaps between the three adjustment domains. The interview data indicated that academic and sociocultural adjustment improved steadily over time, whilst psychological adjustment tended to remain more variable.

*(Insert Table 1 near here)*

### *Theoretical background to the model*

Figure 2 below illustrates the theoretical background underpinning our model. Two dominant theoretical approaches to the study of adjustment have become well-established in the cross-cultural sojourner literature: (a) stress and coping approaches, and (b) culture-learning and social skills approaches. Drawing on the fields of education and social psychology, both theoretical approaches view cross-cultural sojourners as proactive individuals who can respond to change rather than being passive victims of 'culture shock' (Zhou et al. 2008). Stress and coping approaches emphasise affective elements and highlight the significance of life changes in the sojourner experience. Advocates of stress and coping approaches argue that cognitive appraisal and coping strategies are required to deal with acculturative stress (e.g. Berry 1997). If adequate coping strategies are employed on the part of the sojourner, the acculturative stress experienced may be low; whereas if the coping strategies or resources are not sufficient, the acculturative stress experienced may be high and can result, in severe cases, in anxiety and depression (Smith and Khawaja 2011).

Culture-learning and social skills approaches, on the other hand, highlight the behavioural elements of the sojourner experience. Proponents of this approach assume that sojourners arrive in the host environment with a lack of appropriate social and cultural skills (e.g. Furnham and Bochner 1982, 1986). Thus, learning the salient characteristics of the new environment becomes essential. Adjustment is conceptualised here as a growth-facilitating experience, that is initial difficulties are followed by steady improvement as the sojourner acquires culture-specific skills required to function effectively in the new environment (Ward et al. 2001). Although the notion of acquiring 'culture-specific' skills may take an overly narrow view of both acquisition and of 'culture' (cf. Holliday et al. 2004), both approaches nevertheless provide a useful framework for the study of international students' adjustment and adaptation.

Any cross-cultural transition is a major life event (Berry 2006b), and the one to becoming an international student involves the loss of, or at least a major change in, familiar

social support systems, and exposes students to an unfamiliar academic and sociocultural environment. In order to experience a successful sojourn, adjustment is needed. In line with Ward et al. (2001), psychological adjustment is viewed through a stress and coping lens – coping strategies are employed to deal with acculturative stress. The degree of success in employing these coping strategies will ultimately determine the degree of psychological adaptation achieved. Academic and sociocultural adjustment, on the other hand, are viewed through a culture-learning and social skills lens – the acquisition of culture-specific knowledge and social skills will ultimately determine students' academic achievement and degree of sociocultural adaptation.

*(Insert Figure 2 near here)*

### *Contributory factors to international students' adjustment*

As researchers have searched for generalisable patterns of international student adjustment, they have found that there is considerable variation across individuals (Kim 2001; Masgoret and Ward 2006). The next section therefore considers contributory factors to international students' adjustment which were found to be significant in Study 1 and 2 above and the wider literature. Following Berry (2006b), we distinguish between 'pre-sojourn' and 'in-sojourn' contributory factors (Figure 1, above). The former refers to dispositional factors that may impact on an individual's adaptation potential. This includes aspects such as host language ability, knowledge about the host country, prior overseas experience, degree to which the move abroad was voluntary or influenced by external factors, and intercultural competence. A number of recent studies have demonstrated fairly conclusively that these 'pre-arrival' factors impact significantly on international students' adaptation potential (e.g. Author et al. 2013; Author 2014). Kim (2001) integrates these factors under the umbrella-term 'preparedness for change':

> Strangers' adaptation potential is directly a function of the degree to which they are prepared for change – that is, their readiness for and understanding of the challenges of crossing cultures and of the particular host culture and its communication system.
> (ibid: 166)

Additionally, recent research has highlighted the importance of social connectedness for student sojourners' adjustment and adaptation (e.g. Author et al. 2013; Author and Author 2014). This includes degrees of social contact and social support. These factors are conceptualised here as 'in-sojourn'. Contributory factors are further discussed below, starting with host language ability.

*Host language ability*

Studies 1 and 2 (outlined above) both found a significant relationship between self-rated English language ability and academic achievement. This corroborates earlier research which has consistently shown that proficiency in the local language, or in a lingua franca such as English if this is the main language of instruction and assessment, is crucial to academic success (e.g. Ramsay et al. 2007; Gu, Schweisfurth and Day 2010). Significant relationships were also found with psychological wellbeing (Study 1 and 2), and with satisfaction with life and sociocultural adaptation (Study 2). This impact of language ability beyond the purely academic has also been reported in other studies (e.g. Sumer, Poyrazli and Grahame 2008; Schutz and Richards 2003). For example, Yang et al. (2006) found that poor language skills may impede sociocultural adjustment.

*Knowledge about the host country*

Study 2 found a significant relationship between self-rated pre-arrival knowledge about the host country and subsequent academic achievement, satisfaction with life and sociocultural adaptation (Table 1). Whilst the benefits of acquiring culturally relevant knowledge have been noted (Ward et al. 2001), most empirical studies on the effects of pre-departure preparation remain limited to international business settings (Littrell et al. 2006). The small body of research on the role of pre-arrival knowledge for international students' adjustment points to a positive association. For example, Chapman, Wan and Xu (1988) found that prior knowledge of the programme of study was a significant predictor of the academic achievement of an international postgraduate student sample in the US. In a more recent study, Tsang (2001) found a significant positive relationship between pre-arrival knowledge and the general and interaction adjustment of students sojourning in Singapore.

*Prior overseas experience*

Study 2 found that international students with prior overseas experience performed better academically than their peers who lacked this type of prior exposure. This suggests that prior experience of the practical aspects of cross-cultural transition might ease adjustment to a new location (Lee and Sukoco 2010). Empirical evidence from the business sojourner literature has previously linked prior overseas experience positively with work adjustment (e.g. Black 1988), general adjustment (e.g. Parker and McEvoy 1993), and interaction adjustment (e.g. Yavas and Bodur 1999), but there is relatively little empirical research on this matter as regards international students.

*Autonomy in the decision to study abroad*

Study 2 found that the greater the degree of autonomy in the decision to study abroad, the higher international students' levels of academic achievement, psychological wellbeing, satisfaction with life and sociocultural adaptation. This corroborates Chirkov et al.'s (2007, 2008) studies which identified autonomy in the decision to study abroad as a powerful factor in predicting student sojourners' adaptation. In a sample of Chinese international students in Belgium and Canada, high levels of autonomy in the decision to study abroad correlated positively with self-determination in academic activities, willingness to learn more about the host culture and overall psychological wellbeing (Chirkov et al. 2007). In a follow-up study of international students in Canada, Chirkov et al. (2008) found that degree of autonomy in the decision to study abroad was a predictor of several adjustment outcomes, including overall wellbeing and social difficulties during the sojourn.

*Intercultural competence*

Studies 1 and 2 showed highly significant associations between aspects of intercultural competence and international students' adaptation (Table 1, above). Whilst conceptualisations are myriad (see Fantini and Tirmizi 2006), intercultural competence (IC) here refers to 'knowledge, skills and attitudes that comprise a person's ability to get along with, work and learn with people from diverse cultures' (HEA 2013). This includes dimensions such as cultural empathy, open mindedness, social initiative, emotional stability, and flexibility (Van Oudenhoven and Van der Zee 2002). Recent studies have shown a significant link between IC and international students' adaptation (e.g. Leong 2007; Yakunina et al. 2012; Lee and Ciftci 2014). These studies employed the Multicultural Personality Questionnaire (MPQ, Van Oudenhoven and Van der Zee 2002) which has been identified as one of the most promising psychometric instruments to measure IC (Matsumoto and Hwang 2013).

*Social contact and social support*

Studies 1 and 2 highlighted the crucial role of contact with host nationals and with other international students for academic, psychological and sociocultural adaptation (Table 1, above). This resonates strongly with other studies which have confirmed the importance of social connectedness in the international student sojourn. In comparison to their domestic peers, international students need to make extra efforts to achieve social integration in the new environment as their familiar social networks are usually not within easy reach (Rienties

et al. 2012). Studies suggest that those with a strong social network report lower levels of stress and more positive effects from study abroad in general (Russell, Rosenthal and Thomson 2010). The role of contact between student sojourners of different nationalities in particular is attracting growing research attention. For example, in a study of social contact patterns among a sample of 100 international students in Australia, Kashima and Loh (2006) found that the more international ties students had, the better adjusted they were psychologically.

The quality of social ties has also received considerable research attention, and is generally measured through the variable of social support (see Zhang and Goodson 2011). A great deal of research has shown that international students generally have a greater need for support than their domestic peers (Andrade 2006) as they face unique challenges salient to their status as temporary visitors (Ong and Ward,2005). Studies 1 and 2 found significant relationships between social support, in particular the socio-emotional kind, and academic achievement, satisfaction with life and sociocultural adaptation (Table 1). This is line with studies reporting a buffering effect of social support on acculturative stress (Smith and Khawaja 2011).

**Conclusion**

This paper integrates theory and empirical data, and proposes a conceptual model (Figure 1, above) of international student adjustment and adaptation. We intend for this paper to be used as a heuristic and as a discussion document for students, both 'home' and 'international', and for those working with international students at universities in the UK and elsewhere. From an empirical and methodological perspective, there is potential for the model to be used to research international students' adjustment and adaptation across locations and degree programmes. The model provides a research framework which allows for a combination of predictive (i.e. quantitative) and monitoring (i.e. qualitative) approaches, thereby enabling researchers to study both processes (i.e. adjustment) and outcomes (i.e. adaptation) of cross-cultural transition. Such a combination has been very rarely employed in the international student literature, despite its advocacy by a number of scholars (e.g. Zhou and Todman 2009).

**Implications for practice and potential applications**

On a practical level, we hope that the proposed model can serve as a reflective tool for international students themselves, and as an institutional tool for HE institutions. At the

centre of our adjustment model is (a) students' readiness for study abroad (i.e. pre-sojourn factors), and (b) social connectedness developed as part of the sojourn (i.e. in-sojourn factors). For those in charge of providing support services to international students, an understanding and recognition of these contributory factors is key if the services on offer are to be effective. While host university support is, in practice, often strategically focused on the early sojourn stages (Ramsay et al. 2007), we propose that a combination of early pre-arrival orientation and training, and ongoing long-term support *in situ* is most likely to be effective. We outline below a number of possible applications.

### *Pre-arrival support and orientation*

The pre-arrival preparation of international students often remains limited to purely linguistic preparation (Author et al. 2013). However, whether a sufficiently high score on a standardised pre-sojourn language test necessarily equates to confidence in using the language *in situ* remains unclear (Takahashi 2009). We therefore propose an emphasis on more applied communicative language training, including exposure to local varieties and informal language (Lewthwaite 1996). Moreover, training aimed at developing intercultural competence could very usefully be incorporated into pre-sojourn language training, for example through critical instances, case studies and role playing (Fowler and Blohm 2004). Factual information necessary to successfully carry out daily tasks can be incorporated into a pre-arrival website, without imposing specific cultural expectations and behaviours on the students (Turner 2006). This can aid prospective students to develop realistic expectations (Leiba-O'Sullivan 1999).

### *In-situ support and orientation*

Upon arrival, ongoing support can be provided in a number of ways:

1. Host universities could offer reflective in-sessional intercultural training workshops. Psychometric instruments such as the MPQ could very usefully be used as a diagnostic tool to establish the training needs of international students and of staff (Van Oudenhoven and Van der Zee 2000).

2. Ongoing and discipline-specific academic language support should be provided, ideally at course or department level.

3. Factual knowledge about the host country should be transformed into 'knowledge in action' (Etherington and Spurling 2007). Host universities could offer opportunities for incoming students to apply their knowledge to structured and 'safe' environments.

Examples may include guided shopping-tours of local supermarkets or organised journeys on the public transport system.

4.  Host institutions can provide more targeted support services to those students who may have been pushed to study abroad by external factors. There are, for example, indications in prior research that international students from East Asian countries might be particularly susceptible to external pressure in their decision to study abroad (Bodycott and Lai 2012).

5.  Links among student sojourners (i.e. 'international ties') should be actively fostered by host institutions by encouraging peer interaction in the classroom through, for example, group activities in mixed-nationality teams.

6.  Outside the formal classroom setting, strategies that host universities could more actively pursue include 'buddy-schemes', which could be extended from campus to the wider local community.

7.  Counselling services can be made more sympathetic to international students' adjustment issues through intercultural training for wellbeing-advisers and counsellors (Arthur 2004). In the academic domain access to responsive and culturally-aware tutors is equally desirable (Author et al. 2013).

**Research agenda**

The model put forward in this paper (Figure 1, above) opens up a broad range of avenues for future research, and we suggest that it should be further tested with diverse student samples in different contexts. In particular, given the diversity of the international student group, a number of comparative studies will be necessary to ascertain the applicability of the model across different groups of international students. A first key question could be whether and, if so, how level of study (i.e. undergraduate, postgraduate taught, postgraduate research etc.) impacts on contributory factors to adjustment and associated outcomes. Secondly, the data drawn on in this paper was mostly from students in the humanities and social sciences. Therefore, the findings, and by extension the model, might not necessarily be representative of international students in other disciplines. Thirdly, while our model takes a micro-level perspective, focusing on the characteristics and circumstances of the individual student, a further key question could be in how far host country-specific macro-level factors, such as national discourse on immigration for example, act as confounding variables in international students' adjustment process. On a semi-macro, more institutional level, it might be useful to

explore the role of universities' internationalisation agendas in international students' adjustment, especially given the increasing commitment of UK universities to 'internationalisation at home'. Fourthly, comparisons across genders and nationalities might provide clues as to whether and how adjustment and adaptation varies according to demographic background. Fifthly, future research could ascertain whether international students' acculturation strategies, thus far predominantly studied in the long-term immigrant context (Berry 2006a), might be a further contributory factor to international students' adjustment. Sixthly, outcomes of adjustment (i.e. academic, psychological and sociocultural adaptation) could be measured at different time stages throughout the academic sojourn to track possible changes in these outcome indices longitudinally and monitor possible time-of-year-effects. Finally, one temporal perspective missing from this model is the 'post-sojourn' stage. Future research could test whether the model is applicable to international students' re-entry experiences (i.e. adjustment to the home environment).

We conclude by noting the increasing importance placed by HE institutions worldwide on the 'international student experience'. We hope that the model we present here (Figure 1, above) will provide a useful heuristic tool to explore and explain what, at an individual level,  the 'international student experience' is like, and how it might be understood as an academic, sociocultural and psychological phenomenon of adjustment and adaptation. We also hope, above all, that it can make a positive contribution to enhancing this experience, to the benefit of individual students, the staff and other students who interact with them, and the institutions and wider societies that host them.

**References:**

Andrade, M. S. 2006. "International students in English-speaking universities: Adjustment factors." *Journal of Research in International Education* 5(2): 131-154.

Anderson, L. E. 1994. "A new look at an old construct: Cross-cultural adaptation." *International Journal of Intercultural Relations* 18(3): 293-328.

Arkoudis, S. 2006. *Teaching international students: Strategies to enhance learning.* Centre for the Study of Higher Education, University of Melbourne. http://www.cshe.unimelb.edu.au/resources_teach/teaching_in_practice/docs/international.pdf. Accessed 11 February 2015

Arthur, N. 2004. *Counseling international students: Clients from around the world.* New York: Kluwer Academic.

Berry, J. W. 1970. "Marginality, stress and ethnic identification in an acculturated aboriginal community." *Journal of Cross-Cultural Psychology* 1: 239-252.

Berry, J. W. 1997. "Immigration, acculturation, and adaptation." *Applied Psychology* 46(1): 5-34.

Berry, J. W. 2006a. "Acculturative stress." In P. T. P Wong & L. C. S. Wong (Eds.), *Handbook of multicultural perspectives on stress and coping* (pp. 287-298). New York: Springer.

Berry, J. W. 2006b. "Stress perspectives on acculturation." In D. L. Sam and J. W. Berry (Eds.), *The Cambridge Handbook of Acculturation Psychology* (pp. 43-57). Cambridge: CUP.

Black, J. S. 1988. "Work role transitions: A study of American expatriate managers in Japan. *Journal of International Business Studies*, 19(2), 277-294.

Bodycott, P., and A. Lai. 2012. The influence and implications of Chinese culture in the decision to undertake cross-border higher education." *Journal of Studies in International Education* 16(3): 252-270.

Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3(2): 77–101.

Brown, L. 2008. "The incidence of study-related stress in international students in the initial stage of the international sojourn." *Journal of Studies in International Education* 12(1): 5-28.

Capraro, R. M. 2007. "Significance level." In N. J. Salkind (Ed.), *Encyclopaedia of Measurement and Statistics* (pp. 889-891). Thousand Oaks, CA: Sage.

Chapman, D., T.Y. Wan, and M. Xu 1988. "Academic adjustment of international students in American universities." *Education and Research* 6(2): 96-10.

Chirkov, V. I., M. Vansteenkiste, R. Tao, and M. Lynch. 2007. "The role of motivation to study abroad in the adaptation of international students: A self-determination theory approach." *International Journal of Intercultural Relations* 31(2): 199-222.

Chirkov, V. I., S. Safdar, J. de Guzman, and K. Playford. 2008. "Further examining the role motivation to study abroad plays in the adaptation of international students in Canada." *International Journal of Intercultural Relations* 32(5): 427-440.

Coles, R., and V. Swami. 2012. "The sociocultural adjustment trajectory of international university students and the role of university structures: A qualitative investigation." *Journal of Research in International Education* 11(1): 87-100.

Ertl, H., and S. Wright. 2008. "Reviewing the literature on the student learning experience in higher education." *London Review of Education* 6(3): 195-210.

Etherington, S., and N. Spurling. 2007. *Knowledge in Action: International students and their interaction with cultural knowledge.* http://www.ece.salford.ac.uk/proceedings/papers/03_07.pdf Accessed 10 January 2015.

Fantini, A. E., and A. Tirmizi. 2006. *Exploring and assessing intercultural competence.* World Learning Publications. http://digitalcollections.sit.edu/worldlearning_publications/1 Accessed 15 January 2015.

Fowler, S., and J. Blohm. 2004. "An analysis of methods for intercultural training." In D. Landis, J. Bennett, & M. Bennett (Eds.), *Handbook of intercultural training* (3rd ed.) (pp. 37-85). Thousand Oaks, CA: SAGE.

Furnham, A., and S. Bochner. 1982. "Social difficulty in a foreign culture: An empirical analysis of culture shock." In S. Bochner (Ed.), *Cultures in contact: Studies in cross-cultural interaction* (pp. 161-98). Oxford: Pergamon.

Furnham, A., and S. Bochner. 1986. *Culture shock: Psychological reactions to unfamiliar environments.* London: Methuen.

Gu, Q., M. Schweisfurth, M., and C. Day. 2010. "Learning and growing in a 'foreign' context: Intercultural experiences of international students." *Compare* 40(1): 7-23.

UK Higher Education Academy (HEA) 2013. *Intercultural competencies.* http://www.heacademy.ac.uk/resources/detail/internationalisation/ISL_Intercultural_Competencies. Accessed 10 January 2015.

Holliday, A. R., M. Hyde, and J. Kullman. 2004. *Intercultural communication: An advanced resource book.* London: Routledge.

Jindal-Snape, D., and R. Ingram. 2013. "Understanding and supporting triple transitions of international doctoral students: ELT and SuReCom Models." *Journal of Perspectives in Applied Academic Practice* 1(1): 17-24.

Kashima, E.S., and E. Loh. 2006. „International students' acculturation: Effects of international, conational, and local ties and need for closure." *International Journal of Intercultural Relations* 30: 471-485.

Kim, Y. Y. 2001. *Becoming intercultural: An integrative theory of communication and cross-cultural adaptation.* Thousand Oaks, CA: Sage.

Lee, J-Y., and A. Ciftci. 2013. "Asian international students' socio-cultural adaptation: Influence of multicultural personality, assertiveness, academic self-efficacy, and social support." *International Journal of Intercultural Relations* 38: 97-105.

Lee, L-Y., and B. M. Sukoco. 2010. "The effects of cultural intelligence on expatriate performance: The moderating effects of international experience." *The International Journal of Human Resource Management* 21(7): 963-981.

Leiba-O'Sullivan, S. 1999. "The distinction between stable and dynamic cross-cultural competencies: Implications for expatriate trainability." *Journal of International Business Studies* 30(4): 709-725.

Leong, C-H. 2007. "Predictive validity of the Multicultural Personality Questionnaire: A longitudinal study on the socio-psychological adaptation of Asian undergraduates who took part in a study-abroad program." *International Journal of Intercultural Relations* 31(5): 545-559.

Lewthwaite, M. 1996. "A study of international students' perspectives on cross-cultural adaptation." *International Journal for the Advancement of Counselling* 19(2): 167-185.

Littrell, L. N., E. Salas, K. P. Hess, M. Paley, and S. Riedel. 2006. "Expatriate preparation: A critical analysis of 25 years of cross-cultural training research." *Human Resource Development Review* 5(3): 355-388.

Masgoret, A-M., and C. Ward. 2006. "Culture learning approach to acculturation." In D.L. Sam and J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 58-77). Cambridge: CUP.

Matsumoto, D., and H. C. Hwang. 2013. "Assessing cross-cultural competence: A review of available tests." *Journal of Cross-Cultural Psychology* 44(6): 849-873.

Messner, P. E., and N. Liu. 1995. "The test of English as a foreign language: Examination of the 'cut-off scores' in US universities." *International Journal of Educational Management* 9(2): 39-42.

Misra, R., and L. G. Castillo. 2004. "Academic stress among college students: Comparison of American and international students." *International Journal of Stress Management* 11(2): 132-148.

Ong, A. S. J., and C. Ward. 2005. "The construction and validation of a social support measure for sojourners: The index of Sojourner Social Support (ISSS) Scale." *Journal of Cross-Cultural Psychology* 36(6): 637-661.

Parker, B., and G. M. McEvoy. 1993. "Initial examination of a model of intercultural adjustment." *International Journal of Intercultural Relations* 17(3): 355-379.

Quinlan, K. M. 2014. "Leadership of teaching for student learning in higher education: What is needed?" *Higher Education Research & Development* 33(1): 32-45.

Ramsay, S., E. Jones, E., and M. Barker. 2007. "Relationship between adjustment and support types: Author and mature-aged local and international first year university students." *Higher Education* 54(2): 247-265.

Rienties, B., S. Beausaert, T. Grohnert, S. Niemantsverdriet, and P. Kommers. 2012. "Understanding academic performance of international students: The role of ethnicity, academic and social integration." *Higher Education* 63(6): 685-700.

Russell, J., D. Rosenthal, and G. Thomson. 2010. "The international student experience: Three styles of adaptation." *Higher Education* 60(2): 235-249.

Ryan, J. 2005. "Improving teaching and learning practices for international students: Implications for curriculum, pedagogy and assessment." In J. Carroll & J. Ryan (Eds.), *Teaching international students: Improving learning for all* (pp. 92-101). Abingdon: Routledge.

Sam, D. L. 2000. "Satisfaction with life among international students: An exploratory study." *Social Indicators Research* 53(3): 315-337.

Author 2014. *Cross-cultural transition in higher education. The academic, psychological and sociocultural adjustment and adaptation of international postgraduate students at a British university* (Unpublished doctoral thesis), Newcastle University, UK.

Author 2015. "'You cannot talk with all of the strangers in a pub.' A longitudinal case study of international postgraduate students' social ties at a British University." *Higher Education* 69(2): 225-241.

Author 2016. "The effect of study abroad on intercultural competence: a longitudinal case study of international postgraduate students at a British university." *Journal of Multilingual and Multicultural Development* 37(4): 402-418.

Schutz, A., and M. Richards. 2003. "International students' experience of graduate study in Canada." *Journal of the International Society for Teacher Education* 7(1): 10-26.

Smith, R. A., and N. G. Khawaja. 2011. "A review of the acculturation experiences of international students." *International Journal of Intercultural Relations* 35(6): 699-671.

Spencer-Oatey, H., and Z. Xiong. 2006. "Chinese students' psychological and sociocultural adjustments to Britain: An empirical study." *Language, Culture and Curriculum* 19(1): 38-53.

Stoynoff, S. 1997. "Factors associated with international students' academic achievement." *Journal of Instructional Psychology* 24(1): 56-68.

Sumer, S., S. Poyrazli, and K. Grahame. 2008. "Predictors of depression and anxiety among international students." *Journal of Counseling and Development* 86(4): 429-437.

Takahashi, A. 2009. "Self-perception of English ability: Is it related to proficiency and/or class performance?" *Niigata Studies in Foreign Languages and Cultures* 14: 39-48. http://dspace.lib.niigata-u.ac.jp:8080/dspace/bitstream/10191/9349/1/14_39 Accessed 10 January 2015.

Tsang, E. W. K. 2001. "Adjustment of mainland Chinese academics and students to Singapore." *International Journal of Intercultural Relations* 25(4): 347-372.

Turner, Y. 2006. "Chinese students in a UK business school: Hearing the student voice in reflective teaching and learning practice." *Higher Education Quarterly* 60(1): 27-51.

UNESCO Institute for Statistics (UIS) 2013. *Global flow of tertiary-level students.* http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx Accessed 12 April 2016.

Van Oudenhoven, J. P., and K. I. Van der Zee. 2002. "Predicting multicultural effectiveness of international students: The multicultural personality questionnaire." *International Journal of Intercultural Relations* 26(6): 679-694.

Ward, C., S. Bochner, and A. Furnham. 2001. *The psychology of culture shock* (2nd Ed.). Hove: Routledge.

Wright, C., & Author. 2013. "'I can't ... I won't?' International students at the threshold of social interaction." *Journal of Research in International Education* 12(2): 113-128.

Yang, R. P-J., K. A. Noels, and K. D. Saumure. 2006. "Multiple routes to cross-cultural adaptation for international students: Mapping the paths between self-construals, English language confidence, and adjustment." *International Journal of Intercultural Relations* 30(4): 487-506.

Yavas U., and M. Bodur. 1999. "Correlates of Adjustment: A Study of Expatriates in an Emerging Country." *Management Decision* 37(3): 267-278.

Author, and Author 2014. "The effects of cross cultural communication education on international students' adjustment and adaptation." *Journal of Multilingual and Multicultural Development* 35(6): 547-562.

Author, T. J., P. G. Sercombe, I. Sachdev, R. Naeb, and Author. 2013. "Success factors for international postgraduate students' adjustment: Exploring the roles of intercultural competence, language proficiency, social contact and social support." *European Journal of Higher Education* 3(2): 151-171.

Zhang, J., and P. Goodson. 2011. "Predictors of international students' psychosocial adjustment to life in the United States: A systematic review." *International Journal of Intercultural Relations* 35(2): 139-162.

Zhou, Y., D. Jindal-Snape, K. Topping, and J. Todman. 2008. "Theoretical models of culture shock and adaptation in international students in higher education." *Studies in Higher Education* 33(1): 63-75.

Zhou, Y., and J. Todman. 2009. "Patterns of adaptation of Chinese postgraduate students in the United Kingdom." *Journal of Studies in International Education* 13(4): 467-486.

**Tables:**

Table 1. Significant[4] associations between contributory factors and adjustment outcomes in studies 1 and 2

| Study 1 | | Study 2 | |
|---|---|---|---|
| *Contributory factors* | *Outcome* | *Contributory factors* | *Outcome* |
| - Language proficiency (r = .37)* <br> - Cultural empathy (β = .58) <br> - Open-mindedness (β = -.50) <br> - Contact with non-co-national international students (β = .32) | Academic achievement | - Language proficiency (β = .30) <br> - Knowledge about the UK (β = .25) <br> - Autonomy in the decision to study abroad (β = .38) <br> - Cultural empathy (β = .43) <br> - Open-mindedness (β = -.34) <br> - Social initiative (β = .25) <br> - Flexibility (β = .20) <br> - Contact with non-co-national international students (β = .44) <br> - Socio-emotional support (β = .33) | Academic achievement |
| - Language proficiency (r = .26)* <br> - Emotional stability (β = .71) <br> - Open-mindedness (β = .25) <br> - Contact with host nationals <br> - Social support (r = .20) | Psychological wellbeing | - Autonomy in the decision to study abroad (β = .26) <br> - Emotional stability (β = .40) | Psychological wellbeing |
| - Emotional stability (β = .52) <br> - Contact with host nationals (β = .25) | Satisfaction with life | - Language proficiency (β = .21) <br> - Knowledge about the UK (β = .20) <br> - Autonomy in the decision to study abroad (β = .37) <br> - Cultural empathy (β = .37) <br> - Social initiative (β = .26) <br> - Emotional stability (β = .21) <br> - Contact with non-co-national international students (β = .34) <br> - Contact with home students (β = .14) <br> - Socio-emotional support (β = .31) | Satisfaction with life |
| | | - Language proficiency (β = .40) <br> - Knowledge about the UK (β = .34) <br> - Autonomy in the decision to study abroad (β = .45) <br> - Cultural empathy (β = .19) <br> - Social initiative (β = .35) <br> - Emotional stability (β = .22) <br> - Contact with home students (β = .15) <br> - Contact with non-co-national international students (β = .33) <br> - Socio-emotional support (β = .36) | Sociocultural adaptation |

---

[4] A significance level of p < .05 was set in both studies as is common in the social sciences (Capraro, 2007).

*Only correlation analysis was conducted for this factor

**Figures:**

Figure 1. A conceptual model of international student adjustment and adaptation

Figure 2. The broader theoretical background underpinning the model