

## **Transitional distance: A new perspective for conceptualizing student difficulties in the transition from secondary to tertiary education**

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This paper develops a ‘transitional distance’ perspective on the nature of the difficulties which first-year students experience when they enter a tertiary institution. The perspective is based on the idea that every entrant to a tertiary institution undertakes a ‘journey’ of adaptation to the social and academic demands associated with student life in that institution. ‘Distance’ is used as a metaphor for the extent of the difficulty associated with that journey or aspects of that journey – and refers to both the amount of adaptation needed and the degree-of-difficulty of the adaptation processes. A small transitional distance implies an ‘easy’ transition with few or minor transitional difficulties, while a great transitional distance implies major difficulties in one or many processes of adaptation which an entrant needs to negotiate. The metaphors ‘transitional distance’ and ‘transitional journey’ embody a different, and we argue a richer and more appropriate, set of nuances about the transitional difficulties students experience than are associated with currently used metaphors or terms such as ‘gaps’, ‘under-preparedness’ of students or of institutions, ‘disadvantaged students’ and ‘cultural distance’. After developing and discussing the new perspective, the paper draws data from the literature to develop a ‘transitional distance model’ as a framework for conceptualizing the difficulties students may experience in the transition from secondary to higher education. The paper then presents a survey study on the first-year experience of the 2012 cohort of first-year chemical and metallurgical engineering students at a South African university. The survey questionnaire was based on the transitional distance model. The implications of the findings of the study and the utility of the transitional distance perspective are then discussed with regard to the design of interventions and institutional re-structuring that aim to reduce student attrition by assisting students through the transition into higher education.

### **Introduction**

The transition from school to college or university can be stressful and, for many students, the reasons for dropping out or performing poorly begin with or are exacerbated by difficulties in adjusting quickly and effectively to the social and academic demands associated with student life in a tertiary institution. Designing and implementing measures to help students to negotiate these difficulties successfully is therefore a high stakes enterprise. The stakes are high not just because of the large investment associated with implementing such measures but also because of the consequences if the measures fail to be effective in reducing student attrition. In the South African context, for example, Letseka and Maille (2008) went as far as suggesting that high rates of attrition, caused at least in part by transitional difficulties, constituted a threat to the future of the country.

How transitional difficulties are problematized and what is done to minimize or ameliorate them depends very much on how they are perceived. This paper develops a ‘transitional distance’ perspective on the nature of these difficulties and explores its utility as a conceptual framework for informing the design of measures for helping students to negotiate the difficulties successfully. The paper begins by describing the new perspective and then draws data from the literature to develop a ‘transitional distance model’ of the transitional processes and difficulties which students may experience when they enter a tertiary institution. The paper then presents the findings of a study that used the model as a basis for surveying the first year

experience of a cohort of South African engineering students. The paper concludes by discussing the utility of the transitional distance perspective as demonstrated by the study findings.

### **The ‘Transitional Distance’ Perspective**

This perspective develops from the idea that the secondary-tertiary transition is a kind of journey – a journey of transition or adaptation, or a ‘learning journey’ (McKavanagh & Purnell, 2007), even a ‘pilgrimage’ (Visvanathan, 2002). The journey metaphor suggests a starting point, an end point and a range of processes that must be negotiated in order to get from the one to the other.

The starting point of a transition into a tertiary institution is conceived as being the characteristics of the entering student – in effect, where they are ‘coming from’ in the sense of the knowledge and skill base they possess as well as their needs and attributes as they begin the transitional journey. More precisely, the starting point is conceived in terms of the ‘personal capital’ which a student brings with them when they embark on a transitional journey. Here, we use ‘capital’ in Bourdieu’s sense of the personal power and resources an individual possesses (Grenfell, 2008). The term works off the idea of economic capital but goes beyond it to include, in particular, ‘cultural capital’ which consists of “informal personal skills, habits, manners, language, educational credentials, and life style preferences” (Berger, 2000, p. 97). It also includes the sense of the ‘acquired worldview’ of a person – that web of dispositions, expectations, perceived entitlements, perceptions, and values that are implicitly possessed by an individual and derive from their history, cultural background and circumstances (Berger, 2000, p. 99; Grenfell, 2008; R. Moore, 2008). In effect, a student’s personal capital constitutes the resources and personal power which they are able to bring to bear when they engage with the world around them. When they enter a tertiary institution – i.e. when they embark on a transitional journey – it is the nature of this personal capital that determines how they are able to cope with the world they enter as a student in that institution.

The nature of that world is shaped in particular by the institution and its culture – i.e. by the set of systems, structures, rules, expectations, social relations and ways of doing things which prevail in the institution. To the extent that a student’s personal capital is congruent with that culture they are able to function comfortably and effectively in it; they are able to devote their energies effectively to achieving their academic and related goals, and are little distracted from this by having to adapt to the culture – i.e. to having to build the additional personal capital needed to learn, study and function effectively in that culture. It is in this sense that Kuh and Love (2000) coined the term ‘cultural distance’ to draw attention to obstacles to students’ success that arise from the differences between the culture a student comes from and the culture the student enters at university or college. Put another way, there may be a ‘distance’ or ‘gap’ between the personal capital of a student on entry and the personal capital they need to have in order to function effectively in the prevailing culture of the institution they enter. As such, the end point of a journey of transition into a tertiary institution is the condition of having developed personal capital that is congruent with the institution’s culture and systems. A transitional journey is therefore a journey towards congruency through adaptation processes that develop the appropriate personal capital.

Several researchers have used ‘distance’ as a metaphor for the extent or difficulty associated with a ‘journey’ or process of some kind. As already mentioned it has been used by Kuh and Love (2000) as a metaphor for the extent of cultural differences. Taylor et al. (1981) and Moore (1993) use the concept when they refer to ‘transactional distance’ with regard to difficulties associated with interactional processes between instructors and learners in distance-education.

The notion of distance is also embodied in the idea of a ‘gap’ of some sort that may exist between one stage of education and the next – an idea that has been mentioned or used by many researchers (Cox, 2000; Cross, Shalem, Backhouse, & Adam, 2009; Davidowitz & Rollnick, 2010; Mumba, Rollnick, & White, 2002; Rollnick, Manyatsi, Lubbe, & Bradley, 1998; Taylor, Chou, & Fisher, 1999; Tolstova, 2006). Interpreted from the perspective of a transitional journey, a ‘gap’ is the distance to be traversed between the start and end points of the journey. However, the idea of a ‘gap’ is inherently inadequate as a metaphor for the nature of a transitional journey: it does not imply that that journey may involve a number of different kinds of adaptation processes; and it fails to suggest that some types of adaptation processes may be more difficult to negotiate than others. Put another way, the distance travelled on a journey is not the only factor that could make that journey difficult; the nature of the ‘terrain’ journeyed through – in this case, the nature of the adaptation processes to be negotiated – will also influence the difficulty of that journey. In essence, the difficulty of a transitional journey has more than one dimension; it is determined at least by the extent or amount of adaptation to be made and how hard the associated adaptation processes are to negotiate successfully. Accordingly, we coin the term ‘transitional distance’ to refer to the overall difficulty of a transitional journey or parts of that journey in all its various dimensions. We now illustrate this metaphor using data from the literature and develop a ‘transitional distance model’ of the nature of the difficulties students may face in the transition from secondary to higher education.

### **A Transitional Distance Model**

Recently, Woollacott, Simelane and Inglis (2011a, 2011b) reported a study in which interview transcripts from work by Simelane (2007) with 12 South African engineering students were re-examined from the perspective of the students’ first-year experience. Six themes were identified in that study: adapting to new circumstances, new rules, new demands, new skills, new language, and changing old habits. These are summarized and discussed below. Each theme describes a different type of adaptation process which the students in Simelane’s original study had had to undertake. In the summaries which follow (which are modified extracts from Woollacott et al., 2011a), the transitional distance associated with each type of adaptation process is evaluated both from the perspective of the amount of adaptation involved and the degree-of-difficulty associated with adapting in the way described.

#### **Adapting to New Circumstances**

This type of adaptation processes involves getting used to a geographical and social environment that is different from the one a student has come from. The student has to adjust to a much larger, unfamiliar educational institution, to different demographics among peers and teachers, and, in some cases, to a considerable physical distance from family support. It appears from what the students said that although the *amount* of adjusting needed was extensive the *kind* of adaptation needed did not seem to have presented any particular difficulty. The students, with one exception, said very little if anything about these adaptations, or about them being particularly difficult or stressful. There were no specific comments about difficulties arising from general cultural differences with regard to, for example, cultural patterns of interaction, and township culture compared to the culture in a university located in a major city. It appeared that the students were more concerned about difficulties that affected their academic performance and that, in comparison, getting used to new circumstances was, in most cases, a relatively minor difficulty that was easily managed and did not create undue stress. Accordingly, the transitional distance associated with adjusting to new circumstances seemed to be relatively small for these students. More specifically, the degree of difficulty appeared to be sufficiently small that the amount of adaptation needed constituted only a moderate transitional distance for the students.

### **Adjusting to New ‘Rules’**

In this category of adaptation processes, a student has to become aware of and adapt to a different set of systems and structures, and they have to learn how to access and use these. They have to learn, understand and comply with the ‘rules’ behind the instruction’s assessment and support structures that characterized the university’s academic environment. The impact of these factors is poignantly captured by the following quotation from one of the students.

“I am a very persistent and hard-working person and I felt that school had prepared me for university. But since I have been here I have realized that this is not true. This place is like a new house and in a new house there are new rules and things are kept in different places and you do not always know what you should do or where you should go for help. But then, as time goes on you begin to learn what is expected of you but it is still a shock. It is like waking up in a new house when you still expect to be living in the old one and all the rules have changed.”

As suggested by the quotation, it appears that the *amount* of adjusting students needed to do was once again considerable; the students were initially shocked by how different the university systems were from the equivalent school systems. However, the *kind* of change called for involved becoming aware of and familiar with what was required – a process that did not appear to be unduly difficult; it just took time. However, the needed adaptations did seem to create some degree of stress particularly if any slowness to adapt impacted on the student’s ability to function satisfactorily in the academic environment. Accordingly, the transitional distance seems to have been greater than for adjusting to new circumstances but, relatively, the degree-of-difficulty associated with the adaptation process was not considerable.

### **Adjusting to New Demands:**

In this category of adaptation processes there is a qualitative shift in the kind of adjustment a student needs to make – they are confronted by a different set of learning demands. The workload and pace of instruction is significantly greater than at school. The amount to be learned and the rate of learning expected are much greater than in their prior experience. Also, the way in which students had to go about learning is also significantly different – students are much more ‘on their own’ and are expected to organize their time and resources appropriately. It was clear from the students’ reported experiences, that the amount of adaptation needed was considerable and that failure to adjust to the new demands impacted significantly on their academic performance. Further, the kind of adaptation needed was qualitatively more difficult than adapting to new circumstances or new rules; adaptations in personal performance were required rather than merely adjustment of awareness and conformity to new circumstances and ‘rules’. The need to perform in new ways called for personal skills that may or may not have been adequate to the task – issues considered in more detail in the next three categories of adaptation processes. It was apparent that the combined impact of the pressure on students created by these new demands was considerable leading to stress and disconcertion, confusion, falling behind, and, all too often, not knowing what was going on. The transitional distance associated with adjusting to new demands was clearly quite considerable, involving much adaptation that was fairly difficult to undertake successfully.

### **Developing New Skills**

In this category a student has to develop appropriate and even new ways of engaging with a teaching and learning environment that is new to them. For example, they have to develop note-taking skills in a lecture environment. In addition, they have to develop new skills for coping with demands that are new to them – in particular, new time management and study scheduling habits are needed. In principle, the processes of developing new skills and habits is qualitatively more demanding than simply adapting to new circumstances, new rules and new

demands. They involve time-consuming and sometimes difficult personal change, persistence and discipline. It seemed that many of the students had not previously had to exercise, develop or rely extensively on such disciplines because they had found school ‘easy’ as they were academically strong students. Both the amount and difficulty of making the needed adaptations was clearly considerable. In addition, the impact on academic performance was also very significant; for example, failure to take adequate notes or to schedule study or manage one’s time appropriately can have a profound impact on performance with concomitant implications on the level of stress experienced. Accordingly, the transitional distance associated with developing new skills was clearly very considerable indeed, both with respect to the amount of adaptation and the degree-of-difficulty.

### **Acquiring New Discourse**

With 8 of the 12 students in the Woollacott, Simelane and Inglis study, the oral medium of instruction at the university (English) was different from that at school where oral instruction had been in an African language either exclusively or in conjunction with English in a code-switching mode. This created difficulties for them in an English medium university with regard to interpreting engineering word problems and understanding spoken instructions and what was said in lectures. In order to function effectively in the university teaching and learning environment and to meet a new set of learning demands, students such as these have to acquire greater proficiency in English and in technical and academic discourse. To do this the *amount* of adaptation required is clearly considerable – for example, most of the 8 students mentioned reported initially understanding only about 60% of what was said in lectures. However, in principle, what makes the associated processes of adaptation very extensive indeed is the *kind* of adaptation that the students need to make; they have to acquire a new skill and this requirement is not the primary focus of the educational programme. For students such as these, this appeared to be qualitatively more demanding than lifting one’s personal performance or adapting to new circumstances or rules. Accordingly, the transitional distance associated with this type of adaptation was considered to be extreme.

### **Replacing Old Habits**

This type of adaptation process is also in the area of skills development but has to do with ‘habit change’. Aspects of a student’s prior learning practices and habits of self-regulation may need to change significantly if the student is to perform to their potential in a tertiary environment. In principle, replacing old habits is more difficult than developing new habits or new skills particularly when it is not immediately obvious that such ‘habit change’ is necessary. For example, the need to adjust to a new discourse is very obvious when you find you do not understand much of what is said but, in particular, it is less obvious that a change in one’s study practices may be necessary in order to perform better academically and even less obvious what kind of change is needed. Few of the students spoke explicitly about such habit change and many seemed not to have been very aware of either the need to change habits as such or of the difficulties involved. However, it did appear that, compared to the other types of adaptation processes, the potential for stress arising from adaptation in this area was extreme: the amount of change that is necessary when changing old habits as well as the difficulty associated with making such changes are considerable; the impact on academic performance is potentially extensive but the kind of adaptation that needs to be made is not necessarily obvious to students. Accordingly, this category of adaptation process seems, for these students, to have been associated with a transitional distance that is greater than with any of the other categories.

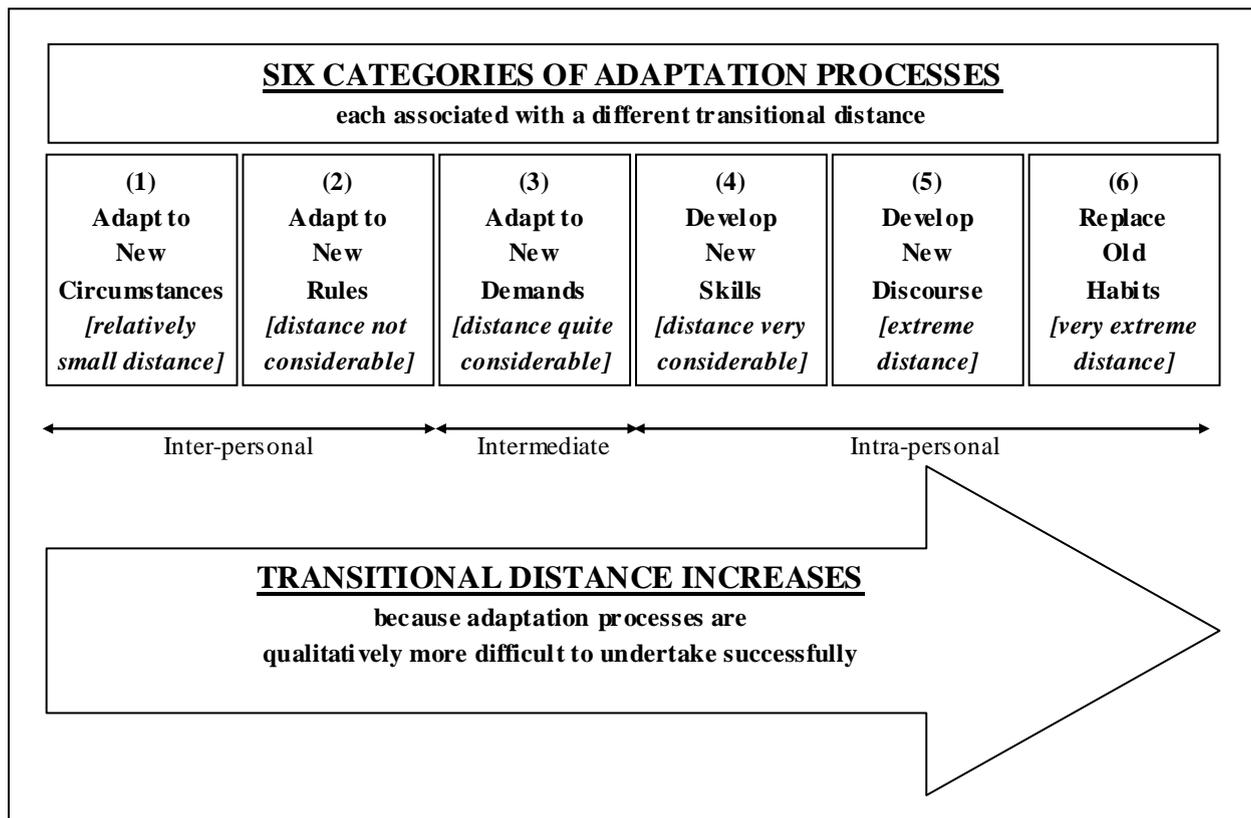
## Discussion

The six types of adaptation processes just described amply illustrate the kind of variation in the nature of the transitional difficulties which entrants to a tertiary institution can experience. None of these processes has anything explicitly to do with the attainment of the required learning outcomes, or a student's academic knowledge base or their innate ability to learn. Rather, each has to do with some aspect of the social and academic environment and the difficulty in adapting to that environment. It is also evident in the descriptions that the transitional difficulties caused stress for the students and that the degree of stress caused is commensurate with the transitional distance associated with the adaptations students need to make. We argue that if a student fails to adapt successfully in any of the ways described – if they fail to develop the additional personal capital needed to function comfortably and effectively as a student in the environment prevailing in the institution – it will not only stress the students but is likely to impact negatively on their academic performance and cause them further stress.

An interesting feature that emerges from the six themes that have been described is that they fall into three qualitatively different kinds of processes: inter-personal, intra-personal and intermediate adaptations. The first two themes – adapting to new circumstances and new rules – have to do with adapting to the tertiary environment which involves adaptations external to a student; i.e. they are inter-personal in nature. The last three themes – developing new skills and discourse and replacing old habits – have to do with making internal adaptations in order to be better able to cope with the tertiary environment. As such, they are intra-personal in nature. The remaining type of adaptation process – adapting to new demands – is intermediate in nature; the demands derive from the environment but the means of dealing with them depend on a student's inner resources. As such they are intermediate between inter- and intra-personal in nature. On the basis of these observations, the transitional distance model depicted in Figure 1 was developed.

While the amount of adapting a student needs to make in each of the six categories of processes is idiosyncratic to each student, the degree-of-difficulty associated with each kind of process is more generic in nature. The model indicates our attempt to evaluate the relative degree-of-difficulty of each kind of adaptation process – i.e. the relative transitional distance associated with each adaptation process. Our evaluation is based firstly on the stated experiences of the students as explicated in the study by Woollacott et al. (2011a), secondly on our evaluation of the inherent difficulty of making each kind of adaptation, and thirdly on a consideration of the potential which each kind of adaptation process has to stress the students and to impact negatively on their academic performance if they fail to adapt adequately.

In principle, the model provides a basis for assessing the overall transitional distance associated with an individual's transition into higher education. It constitutes a model of the qualitative degree-of-difficulty of each type of adaptation process. Therefore, if the extent of adaptation that an individual student needs to make in each of the six categories can be identified, for example through an appropriate survey instrument, then both the quantitative and qualitative dimensions of transitional distance can be estimated for each type of adaptation in order to obtain a combined measure of the overall transitional distance a student



**Figure 4.** A Transitional Distance Model of Difficulties Experienced by Entrants to Higher Education

needs to negotiate. That measure can then, at least in principle, give an indication of the impact which the transitional journey is likely to make on the stress a student experiences and on their academic performance. Such information will obviously be useful to anyone who is responsible for implementing interventions to assist students through the transition or who is involved in curriculum or institutional re-structuring.

#### **A STUDENT SURVEY BASED ON THE TRANSITIONAL DISTANCE MODEL**

The transitional distance model was developed only partially from data on the first year experience of students. In order to give the model a sounder empirical grounding, a preliminary study was undertaken using a questionnaire based on the model. The questionnaire was used to survey the first year experience of the 2012 cohort of entrants to the chemical and metallurgical engineering programmes at Wits. After a preamble, the questionnaire asked students to read short descriptions of each of the six categories of adaptation processes. The descriptions were 2 or 3 sentence summaries of the descriptions given earlier in this paper. After reading each summary description, the students were asked to indicate, on a 4-point scale, the extent to which they had had to adapt in the way described. The instruction was as follows.

Six types of adjustment and transitional difficulties are described below. Consider each carefully and indicate, on a scale 1 to 4, the extent to which you had to make that type of adjustment when you came to university; where 1=didn't need to adjust at all, 2=minor extent of adjustment needed, 3=major extent of adjustment needed, 4=extreme level of adjustment was necessary.

The survey was administered to the class on the last day of the academic year. Not all of the 261 students were present but a total of 169 survey returns were received, i.e. a response rate of

64%. The descriptive statistics of the returns are presented in Table 1. The results are listed in order of transitional distance. The mean values of the student responses suggest that, from the students' perspective, the transitional distance associated with the six adaptation processes decrease in the order 'new demands', 'new skills', 'replacing old habits', 'new circumstances', 'new rules', and 'new language' (i.e. adapting to English as the language of instruction and developing new discourse).

**Table 1.** Descriptive Statistics of the Survey Returns

where 1=didn't need to adjust at all, 2=minor extent of adjustment needed, 3=major extent of adjustment needed, 4=extreme level of adjustment was necessary.

<b>Type of Adaptation</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Skewness</b>
<i>Adapting to New Demands</i>	<b>3.14</b>	.794	-.682
<i>Developing New Skills</i>	<b>2.96</b>	.715	-.344
<i>Replacing Old Habits</i>	<b>2.83</b>	.748	-.141
<i>Adapting to New Circumstances</i>	<b>2.65</b>	.788	.043
<i>Adapting to New Rules</i>	<b>2.51</b>	.860	-.018
<i>Developing New Language</i>	<b>1.92</b>	.906	.833

According to the mean of the student responses, adapting to new demands (high work load and a fast pace of learning) seemed to be by far the most difficult aspect of their transitional experience. It was the only type of adaptation process where the associated transitional difficulties were reported as being, on average, between major and extreme in nature. Difficulties associated with developing new skills or modifying old ones bordered on major in nature according to the students' reports. Difficulties associated with adapting to new circumstance and to new rules were reported to be, on average, about half way between minor and major in nature. Somewhat surprisingly, difficulties associated with language were rated, on average, to be less than minor in nature – although the distribution of responses appeared to be bimodal. This suggests that, according to the survey responses, most students did not find that adapting to language or to the new discourse presented any particular difficulty and that the proportion of students whose experience was otherwise was very much in the minority.

Parametric matched-pairs t-tests were used to investigate the statistical significance of these results. The findings are presented in Table 2. As is evident, all comparisons are significant at the 5% level of significance. However the largest effect sizes were observed for the differences between 'new language' and 'new demands', 'new skills', 'modifying old habits' and 'new circumstances.' There was also a moderate effect size between 'new language' and 'new rules'. This provides empirical support for the argument that adaptation to new language/discourse was not a significant concern for the students in the cohort.

**Table 2.** Paired t-Test Results

Relative effect size (in the range from very small, small, moderate and large) are indicated for each of the paired t-tests according to the Cohen’s D statistic. The p-values and Cohen’s D respectively are indicated in brackets.

	New Skills	Modifying Old Habits	New Circumstances	New Rules	New Language
New Demands	Small (0.007 0.24)	Moderate (0.000 0.40)	Moderate (0.000 0.62)	Moderate (0.000 0.76)	Large (0.000 1.44)
New Skills		Very Small (0.037 0.18)	Moderate (0.000 0.41)	Moderate (0.000 0.57)	Large (0.000 1.28)
Modifying Old Habits			Small (0.019 0.23)	Moderate (0.000 0.40)	Large (0.000 1.10)
New Circumstances				Very small (0.046 0.17)	Large (0.000 0.86)
New Rules					Moderate (0.000 0.67)

The statistics in Table 2 show not only that, on average, the students reported experiences of different kinds of transitional difficulties were significantly different but also indicate the relative extent – the effect sizes – of those differences. Except for ‘new skills’, the responses with respect to ‘new demands’ were significantly different from all other responses with moderate to large effect sizes. This pattern holds across all the comparisons as is evident in the diagonals in Table 2. Hence, reported difficulties associated with ‘new skills’ were significantly different from those associated with ‘new circumstances’, ‘new rules’, and ‘new language’ with moderate to large effect sizes but with a small effect size with regard to the category ‘old habits’ which, from the transitional distance perspective, is the category closest to it. The implications of all these observations are discussed in the next section.

### Discussion and Conclusion

There are a number of limitations of the survey study that make its findings tentative. First, no investigation into the reliability and validity of the survey instrument used was conducted. Second, criticisms could be levelled at the instrument in terms of its structure and the type of information it attempts to solicit from students. Third, the questionnaire asked students only about the extent of adaptations made and did not explore the issue of the relative degree of difficulty of those processes. While these shortcomings are acknowledged it is noted that the study was only preliminary in nature and that, despite the shortcomings, interesting results emerged.

The questionnaire, despite its limitations, was able to show statistically significant differences between the different extents of adaptations reported by students. It found that adapting to new demands appeared to give the students most trouble and that difficulties with language were surprisingly minor aspects of the students’ experience. It suggested that inter-personal adaptations – i.e. adapting to new circumstances and new rules – were significantly less troublesome to the students as compared to adaptations that were more intra-personal in nature. It also indicated that the sequence in degree-of-difficulty proposed by the original transitional distance model may not be accurate from the perspective of the students. This conclusion, however, may be misleading because the instrument is probably not sufficiently refined to

evaluate the relative difficulty of intra-personal adaptations. Given these results, tentative as they may be, further work with a more refined and carefully tested instrument is indicated.

If these findings are confirmed by further study, they would suggest that the measures which institutions implement to support entrants to the institution should be re-evaluated and resources re-distributed to focus on those areas where students experience the most difficulty. In particular, they suggest that heavy investment in ‘first year experience programmes’ – which are particularly helpful in assisting students to adapt to ‘new circumstances’ and ‘new rules’ – is perhaps not an optimal deployment of resources because these types of adaptations appear to be among the least troublesome aspects of a students’ transition into higher education. In addition, such programmes are probably not the most effective way to assist students with the issue that is most troublesome to them – i.e. adapting to new demands and developing new skills. This suggestion can be taken further. If further study does confirm that adapting to new demands is the type of adaptation that students find most difficult, then trying to assist them by adding an additional structure to an already demanding programme seems somewhat counterproductive; a more creative mix of ways of addressing students’ transitional difficulties would be indicated that could include, for example, a degree of curriculum re-structuring that eased students into the heavy workloads in first year and focused more on developing the appropriate skills for managing effectively the new demands they experience.

Uncertainty about the veracity of the conclusions concerning the difficulties associated with intra-personal adaptations (new skills, new language/discourse, and modifying old habits) make it premature to comment further on these aspects of the study findings. In particular, the finding that students were not particularly troubled by difficulties associated with new language/discourse is surprising. Although this may be the result of the programme’s high entrance requirements with regard to maths and English, this aspect of the study’s findings requires further investigation.

Stepping back from a focus on the results of the survey study, it is worth reflecting on what has been achieved by taking a transitional distance perspective on the secondary-tertiary transition. First, it does appear that a focus on both the extent and degree of difficulty of different adaptation processes is justified. Second, the transitional distance perspective provides a viable framework for doing this in a way that is more informative than is currently provided by other perspectives such as ‘gaps’ and ‘cultural distance’ which are less able to differentiate between different aspects of the transitional difficulties students experience. Third, the transitional distance perspective does appear to have the capability of providing a fairly fine grained basis for developing instruments for profiling entrants with regard to the kind of transitional difficulties they are likely to experience. Fourth, profiles developed in this way ground the understanding of transitional difficulties in the experience of the students; they foreground the student voice without losing sight of the institutional intentions and systems which constitute the background shaping the students’ experiences. Finally, the framework for conceptualizing the transition into higher education which the transitional distance perspective provides does appear to be useful for informing the design of measures for assisting students towards a successful transition into higher education.

## References

- Berger, J. B. (2000). Optimising capital, social reproduction, and undergraduate persistence: a social logical perspective. In J. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 95 - 124). Nashville: Vanderbilt University press.
- Cox, W. (2000). Predicting the mathematics preparedness of first year undergraduates for teaching and learning purposes. *International journal of mathematics education in science and technology*, 31, 227-248.

- Cross, M., Shalem, Y., Backhouse, J., & Adam, F. (2009). How undergraduate students 'negotiate' academic performance within a diverse university environment. *South African Journal of Higher Education*, 23(1), 21-42.
- Davidowitz, B., & Rollnick, M. (2010). Adjustment of under-prepared students to tertiary education. In M. Rollnick (Ed.), *Identifying potential for equitable access to tertiary level science*. London: Springer.
- Grenfell, M. (Ed.). (2008). *Pierre Bourdieu: Key Concepts*. Stocksfield, UK: Acumen.
- Kuh, G., & Love, P. G. (2000). A cultural perspective on student departure. In J. Braxton (Ed.), *Reworking the student departure puzzle* Nashville: Vanderbilt University Press.
- Letseka, M., & Maile, S. (2008). High drop-out rates: a threat to South Africa's Future *HSRC Policy Brief*: HSRC is the Human Sciences Research Council of South Africa.
- McKavanagh, M., & Purnell, K. (2007). Student learning journey: Supporting student success through the Student Readiness Questionnaire. *Studies in learning, evaluation, innovation and development*, 4(2), 27-38.
- Moore, M. G. (1993). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical principles of distance education* (pp. 22-38). London, New York: Routledge.
- Moore, R. (2008). Capital. In M. Grenfell (Ed.), *Pierre Bourdieu: Key Concepts* (pp. 101-117). Stocksfield, UK: Acumen.
- Mumba, F. K., Rollnick, M., & White, M. (2002). How wide is the gap between high school and first year chemistry at the University of the Witwatersrand. *South African Journal of Higher Education*, 16(3), 148-157.
- Rollnick, M., Manyatsi, S., Lubbe, F., & Bradley, J. (1998). A model for studying gaps in education: A Swaziland case study in the learning of science. *International journal of educational development*, 18(6), 453-465.
- Simelane, Z. F. (2007). *Identification and classification of incoming learning behaviours amongst a sample of first year, english second language, engineering students: A case study*. Dissertation. University of the Witwatersrand.
- Taylor, D. W., Chou, T. F., & Fisher, S. (1999, 3-4 February 1999). *Evidence of the gap between student's learning approaches and instructors' teaching approaches in accounting education*. Paper presented at the 8th Annual Teaching Learning Forum: Teaching in the disciplines / learning in context The University of Western Australia.
- Taylor, E., Morgan, A. R., & Gibbs, G. (1981). The orientations of Open University students to their studies. *Teaching at a Distance*, 20, 3-12.
- Tolstova, I. N. (2006). Between school and college: Is the gap getting wider? *Russian education and society*, 47(6), 7-26.
- Visvanathan, C. S. (2002). Between pilgrimage and citizenship. In C. A. Hoppers (Ed.), *Indigenous knowledge and the integration of knowledge systems*. Claremont, South Africa: New Africa Books.
- Woollacott, L. C., Simelane, Z. F., & Inglis, J. (2011a). Cultural Distance, Responsivity and the First-Year Experience of English Additional-Language Speakers Entering Engineering Education in South Africa: An Evaluation Retrieved from <http://wpeg.wits.ac.za>
- Woollacott, L. C., Simelane, Z. F., & Inglis, J. (2011b). On the Learning Behaviours of English Additional-Language Speakers Entering Engineering Education in South Africa. *South African Journal of Higher Education*, 25(3), 612-630.