

## **FROM RESPONDENTS INCONSISTENCY TO QUESTIONNAIRE UNRELIABILITY**

Learning approaches and its relations to either perceptions of learning contexts on the one hand and/or academic performances on the other have been widely explored in the past decades (Entwistle & Peterson, 2004; Entwistle, Tait, & McCune, 2000; Kember, Biggs, & Leung, 2004). In particular, the influences of students' approaches on their learning outcomes have been central in many studies (Marton & Säljö, 1984; Trigwell & Prosser, 1991). The findings have established that learning approaches are context dependent (Marton & Säljö, 1976). Other have pointed out the relationships between approaches and outcomes as influenced by the perceptions of particular learning environments (Entwistle & Peterson, 2004; Lizzio, Wilson, & Simons 2002). Students' approaches seem to reveal their perceptions (McCune & Entwistle, 2010). Students' perceptions about their teachers as well as their perceptions of the courses seem to affect their performances (Adediwura & Tayo, 2000; Nolen, 2003). In general, perceptions of good teaching, clear goals and some independence in learning are associated to deep approaches. On the other hand, perceptions of lower quality and perceived heavy workload seem to be related to surface approaches (Bliuc, Ellis, Goodyear, & Hendres, 2011a,b; Kyndt, 2011; McCune & Entwistle, 2010; Meyer, 1991). No significant relationship has been found between the surface approach and quantitative learning outcomes. The deep approach has been associated with higher quantitative learning outcomes (Trigwell & Prosser, 1991).

In this important framework, interesting insights have been produced. Most studies have Anglo-Saxon roots either because they have been done in such a context and/or have used Anglo-Saxon instruments. Hardly any research of this kind was done in Congo. Therefore, the general purpose of this study is to understand how students learn, perceive teachers' goals and courses and how these

variables interrelate and influence academic achievements in Congolese contexts. Questionnaires from Anglo-Saxon context have been used to assess those variables. The revised two-study process questionnaire (R-SPQ-2F) was administered to assess students' approaches to learning (Biggs, Kember, & Leung, 2001). The perceived teachers' goals scale provided data related to students' perceptions of teachers (Nolen and Haladyna 1990a,b; Nolen, 2003) and the students' perceptions to Numerical Programs Scale (SPONPS) was used to collect data about students' perceptions of the course (Osiki, Mushonga, & Jibola 2009). Only for the learning approach instrument a French version was already available (Pottier et al., 2008). Therefore, the back-translated process was used for the two English perceptions questionnaires. In addition, some adaptations were made according to pilot study insights. The administration of questionnaires took place between mid-February and April. 577 students from two universities in Kinshasa participated by completing the two first questionnaires. 188 from these completed also the third one.

Analyses revealed low internal consistency for all three questionnaires. All of alpha values are less than the recommended .70 for each scale (.48, .57 and .49) and their respective subscales. Furthermore, the results showed no possibility to increase alpha closed to .70 even by deleting some items. Because of the observed inconsistency in all questionnaires, factor analysis has been performed to determine underlying structure. The original factor structure could not be retrieved.

On the basis of these results, it was that the instruments cannot be used in a Congolese context. Based on previous studies, researchers have made some criticisms about the R-SPQ-2F's multidimensionality, psychometric properties and how it is linked to socio-cultural context

(Kember & Gow, 1991; Phan & Deo, 2007; Sadler-Smith, 1997). Reviewing studies related to SPQ, Bernardo (2003) has mentioned some researchers who confirmed that SPQ is neither a good predictor of learners' achievement nor a valid instrument to assess learning approaches of Filipino learners. Other researchers have deleted items based on model fit and they have used instrument with only 10 items (Bliuc, Ellis, Goodyear, & Hendres, 2011a).

In brief, the results suggest that the three questionnaires are not sufficiently robust to be used across countries. They may be reliable only in countries with some equivalence in higher education organization with the original context, or comparable in socio-cultural background. Those unexpected results led to some questions for further research. It seems important to reconsider techniques used to collect data, the students' responses and the socio-cultural context.

Importantly, analyses of students' answers have shown many inconsistencies in their responses. For instance, some students simultaneously strongly agreed or disagreed for two opposite statements. Thus students' poor understanding of statements may have strongly affected their responses. Inconsistencies can be also linked to the presence of disparate elements which may influence lower reliability of those instruments (Papala, Lindblom-Ylänne, Komulainen, & Entwistle, 2013). The analyses of Congolese socio-cultural context as well students' conceptions about learning and teaching (Pratt, Kelly, & Wong, 1999) may represent also relevant issues for future research.

Given these outcomes, it seems indicated to construct context-specific instruments. In view of the elaboration of such instruments there is a need for an in-depth understanding of the context specific approaches and perceptions. Hence, qualitative research has been initiated as the basis for identifying critical features of students' approaches and perceptions. Students' utterances might also be used as the starting point for the construction of (context-specific) instruments.