



Transition Skills and Strategies

Self-efficacy

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Introduction

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This report aims to provide an in-depth understanding of the concept of self-efficacy in the context of student transitions. Self-efficacy is one key transition skill that students would benefit from developing, as suggested in Report 2 which compiled a number of evidence-based key skills. The current report begins with a definition of key terms followed by an illustration of the role of self-efficacy at different transition points. Three different contexts: academic study, social life and future career are used to conceptualise the various transitions in and through higher education; moreover the literature points to these three transitions as *types* of self-efficacy. In addition, to maintain consistency with the subsequent in-depth exploration of critical self-reflection, the role of self-efficacy at four transition points (pre-transition, shock, adjustment and progression) are also considered. Finally, the report also presents a number of strategies, which students and staff can use to develop and strengthen skills in self-efficacy.

The construct of self-efficacy

Self-efficacy is defined as a person's beliefs concerning his or her ability to successfully perform a given task (Bandura 1977). Self-efficacy beliefs are perceived to be a major mediator of behaviour as well as of behaviour change. That is, self-efficacy can influence the course of action pursued by an individual, the amount of effort they expend, their resilience, as well as their persistence in the face of obstacles (Bandura 1977). The stronger the notion of self-efficacy, the greater the effort, perseverance and flexibility expended (Bandura 1986).

Self-efficacy beliefs can also influence people's thoughts and feelings (van Dinther et al 2010). Individuals characterised by low self-efficacy are inclined to perceive tasks as more difficult than they actually are. Such thoughts can lead to feelings of failure and depression, tension and helplessness. A high level of self-efficacy, on the other hand, creates feelings of tranquility and challenge in the face of difficult situations (van Dinther et al 2010).

The role of self-efficacy in student transitions

The role of self-efficacy in student transitions is related to three main aspects of higher education: *academic study*, *social life* and *future career*. In discussing each aspect, this report will consider and analyse these different types of self-efficacy (academic, social and career).

Academic self-efficacy

According to Zimmerman (2000), self-efficacy varies according to the domain of demands made on the individual. The suggestion is that in academic settings, it is *academic self-efficacy* that needs to be considered, rather than generalised self-efficacy. The first differs from the latter in that academic self-efficacy beliefs are those which are directed specifically towards academic domains. This contrasts with general self-efficacy beliefs which are those that are directed towards non-academic, general domains (Bong and Skaalvik 2003). More specifically, academic

self-efficacy refers to the individuals' convictions that they *can* successfully perform given academic tasks at designated levels (Schunk 1991).

Many studies have reported a positive correlation between academic self-efficacy and academic performance (for example Bong 2001, Hackett et al 1992, Pajares and Miller 1994, Zajacova et al 2005), whereas generalised self-efficacy measures appear to be less closely correlated (Multon et al 1991). More specifically, academic self-efficacy is positively correlated with the number of hours spent studying (Torres and Solberg 2001), grades (Zajacova et al 2005, Bong 2001 and Hackett et al 1992), as well as persistence (Zhang and RiCharde 1998). A possible explanation for these correlations is that students with a strong sense of academic self-efficacy not only manage and plan their time more effectively but are also better at monitoring their efforts and able to use their knowledge and skills more efficiently (Fenollar et al 2007, Miller et al 1996, Pajares and Schunk, 2002). In addition, these individuals are more likely to view difficult tasks as challenges to be mastered rather than threats to be avoided (Chemers et al 2001). They also tend to recover their confidence quicker after setbacks or failures (Pajares and Schunk 2002).

In contrast, low academic self-efficacy beliefs impede academic achievement and, in the long run, they can create self-fulfilling prophecies of failure and learned helplessness that can have a negative impact on one's psychological well-being (Margolis and McCabe 2006). Students with low academic self-efficacy may perceive tasks to be more difficult than they actually are. Such a belief can lead to stress, depression, anxiety and inefficient problem-solving strategies (Pajares and Schunk 2002). Moreover, compared to students with high levels of academic self-efficacy - who attribute their failures to insufficient preparation that can be improved in the future - students with low academic self-efficacy attribute their failures to low ability, which is something that they perceive to be innate and permanent (Pajares and Schunk 2002).

Social self-efficacy

One skill with important implications for personal development and social life is that of *social self-efficacy*. This is defined as an individual's belief in his/her capabilities to create and maintain social bonds, cooperate with others and manage different types of interpersonal conflicts (Bandura et al 2001 and Muris 2001). According to Bilgin (1996 - cited in Koparan et al 2009), social self-efficacy is an important factor helping individuals to evaluate themselves as successful in their social relationships.

In a study which investigated the impact of social self-efficacy (and self-disclosure) on three variables: attachment, feelings of loneliness and subsequent depression, the authors reported that students with a strong sense of social self-efficacy tended to report lower levels of loneliness and depression (Wei et al 2005). Since loneliness has generally been associated with negative feelings about interpersonal relationships (Jong-Gierveld 1987), it becomes clear that social self-efficacy may have a positive impact on one's social life.

Career self-efficacy

Research also indicates that *career self-efficacy* (that is people's judgments of their abilities to perform behaviors in relation to career development, choice, and adjustment) represents an important predictor of career trajectories across different domains of activity (Bandura et al 2001, Gore, 2006, Anderson and Betz 2001). For example, Tang et al (1999) showed that career self-efficacy had a positive influence on career decision making, with students choosing

to major in fields they felt most confident in. In addition, Taylor and Betz (1983) showed that in general, students expressed considerable confidence in their ability to make career decisions when the strength of students' career self-efficacy was strongly and negatively related to overall levels of career indecision. An explanation for these results is that low expectations of self-efficacy could have led to avoidance of specific tasks required in making career decisions, and therefore, continued indecision (Taylor and Betz 1983).

Interestingly, studies have also suggested that career success is also dependent on *social* self-efficacy (Blustein et al 1991, Felsman and Blustein 1999 and O'Brien 1996). Niles and Sowa (1992) reported significant correlations between social self-efficacy and career decision-making self-efficacy. Other authors have concluded that the capacity for close interpersonal relationships in adolescents is related to more advanced career development and decisional processes (Blustein et al 1991, Felsman and Blustein 1999 and O'Brien 1996). For example, Felsman and Blustein (1999) found that adolescents who reported higher levels of attachment to peers also reported higher levels of environmental exploration and greater progress in committing to career choices. These studies suggest that students need to be encouraged to develop both their career self-efficacy and social self-efficacy in order to thrive in their future careers.

Importance of self-efficacy at key transition points

The four transition points discussed in this section are based on the stages identified as common in the various transition models (for example the Model of Student Adjustment, the Psychological Model of Student Retention, Bridges' Transition Model and the U-curve Theory of Adjustment). These and other models are outlined in Report 1. Thus, the four transition points are: the pre-transition stage, the culture shock stage, the adjustment (or coping) stage and the progression stage.

The following examines the role of self-efficacy at each transition stage.

The pre-transition stage

Bean and Eaton (2002) argue that general self-efficacy is most relevant before entering the university environment (the pre-transition stage). At this stage, students start to think about going to the university and their decision can be based on factors such as relevance for career planning, knowledge and familiarity of programmes or university culture. According to Bean and Eaton (2000), a firm sense of self-efficacy with regard to the particular events and situations that make up campus life can enable students to gain confidence in their ability to survive. If students can adapt at this stage, then this can prepare them for the next stages.

The shock stage

At the culture shock stage of the transition process, successful adjustment depends on the student's confidence in their ability to manage the stressors (Morton et al 2014). It is at this transition stage that students are faced with the greatest number of challenges. That is, they need to adapt to a new physical environment, as well as establish new connections and meet new academic demands (Denovan and Macaskill 2013). However, if students engage in a positive analysis of what they perceive to be the risks as well as use their available coping resources, they will be more likely to view their first year at university as a *challenge* rather than a threat (Morton et al 2014). This view is further supported by empirical research. For instance,

a study by Chemers et al (2001) assessed the influence of self-efficacy on challenge-threat evaluations, and showed that self-efficacy had a strong impact on academic performance and personal adaptation among first-year university students. Moreover, Yusoff (2012) conducted a study on 185 international undergraduate students in Malaysia and showed that students with a strong sense of general self-efficacy also reported higher levels of psychological adjustment.

The idea that self-efficacy is correlated with psychological adjustment is particularly relevant at the culture shock stage since this is the point where students experience the highest levels of anxiety, depression and unhappiness (Denovan and Macaskill 2013, Ramachandran 2011 and Thurber and Walton 2012). In this context, *social* self-efficacy appears to be the most relevant, as students who perceive themselves to be successful in their social interactions are better equipped to deal with stress and overcome depression (Smith and Betz 2002).

The adjustment stage

The third phase in the transition process is the adjustment stage. During this stage, students have to learn how to deal with new studying routines and begin to adapt to their new environment (Risquez et al 2008). In terms of academic demands, for instance, learners will need to be able to demonstrate critical thinking and independence in their studies, and their ability to do so is strongly correlated with academic self-efficacy beliefs (Christie et al 2013; Gore 2006).

According to Zimmerman and Cleary (2006), a key determinant of whether learners employ self-regulatory strategies (that is planning activities, monitoring progress as well as controlling and regulating their own cognitive activities and actual behaviour) rests on the beliefs learners hold about their capabilities to do so. Hence, knowing self-regulatory strategies in itself is insufficient to ensure their effective use; students must also possess the belief that they can use them effectively (Usher and Pajares 2007).

The progression stage

Finally, at the progression stage, career self-efficacy can help students with their future career planning and development. Along with self-reflection, which is useful for identifying and articulating employability skills developed during university studies (for example communication, teamwork, initiative and so on), career self-efficacy can help students gain confidence so that they can succeed in building their careers. Furthermore, as we have seen above, social self-efficacy can also be helpful in relation to career development at the progression stage.

Furthermore, those with a stronger sense of social self-efficacy are less likely to experience social anxiety (Connolly, 1989; Sherer and Adams 1983) and depression (Ehrenberg et al 1991; McFarlane et al 1994), both of which have been found among career-undecided individuals (Larson et al 1988 and O'Hare and Tamburri 1986).

Sources of self-efficacy

Self-efficacy theory posits that individual's acquire information about their self-efficacy from four main sources: (1) enactive mastery experiences (actual performances); (2) model observation of others (or vicarious learning); (3) forms of persuasion; and (4) physiological and affective states (Bandura 1977; Pintrich and Schunk 2002). This report will present an overview of each

of the four sources, followed by a discussion of some practical strategies that students and staff can use to increase students self-efficacy beliefs.

First, enactive mastery experiences provide direct evidence that an individual can be capable of performing a certain task. Palmer (2006) proposes that mastery experiences are in most cases the strongest source of efficacy beliefs because they provide students with authentic evidence that they have the capability to succeed at the task. In addition, a firm sense of self-efficacy built on the basis of past successes is believed to withstand temporary failures (Bandura 1977).

Second, a person might develop self-efficacy from observing others, especially peers who offer suitable possibilities for comparison (Schunk 1987). Observation of successful others raises the chance of success, whereas observation of failures undermines motivation. Nonetheless, Bandura (1977) cautions that observing others is not a direct reflection on how someone will do personally. Consequently, its effect can be weaker than mastery experiences (Bandura 1977).

Third, social persuasion can strengthen efficacy beliefs and persuade people that a task can be successfully completed. Persuasive communication and evaluative feedback are claimed to be the most effective, especially when people who provide this information are viewed as knowledgeable and reliable, and the information is realistic (Bong and Skaalvik, 2003). However, disconfirming mastery experience easily outweighs self-efficacy beliefs created solely on the basis of verbal persuasion (Bong and Skaalvik, 2003).

Finally, self-efficacy beliefs are formed through an analysis of one's physiological or emotional states, which refers to how students feel before, during, and after engaging in a task (Pajares 1997). In general, symptoms and feelings such as anxiety, stress reactions, tension and excitement can be interpreted as signals of failure, whereas a positive mood state appears to strengthen an individual's self-efficacy (van Dinther et al 2010). However, we need to keep in mind that people have the capacity to modify their own thinking and feeling. As a result, students with a high sense of self-efficacy can view a state of tension as energising in the face of a performance, whereas those who have self-doubts interpret their tension as weakness (van Dinther et al 2010).

Practical strategies to support the development of self-efficacy

In line with self-efficacy theory (Bandura 1977), there are a number of practical strategies which can help students develop their self-efficacy beliefs. Some of these strategies are: setting moderately challenging goals, using peer models, responding to feedback and attending mentoring programmes.

Set moderately challenging goals

Setting challenging but attainable goals is closely related with the first source of self-efficacy, that is, mastery experiences. Past performance accomplishments have the strongest influence on self-efficacy beliefs; however a robust sense of self-efficacy is not created by easy success (Bandura 1977). On the contrary, it requires experience of overcoming obstacles and difficult situations through maintained effort and persistence (Bandura 1977). This view is supported by empirical research by, for example, Taylor (1964), who compared the goals of underachievers and achievers and discovered important differences between the two groups. Specifically,

he showed that underachievers either had no particular goals, or if they did, they aimed impossibly high. Achievers, on the other hand, set realistic, attainable goals that were related to their course work.

According to van Blerkom (2012), in order to set moderately challenging goals, students need to consider what they have done in the past and set goals that require them to achieve more than they did before. Continued success with such tasks creates a record of enactive mastery or performance that students can use to prove to themselves that they can succeed (Margolis and McCabe, 2006). This can help ensure further academic engagement on similar tasks and can boost confidence and commitment (Margolis and McCabe 2006).

Peer Models

Another powerful way to help students develop self-efficacy is to have them watch other students do well on targeted tasks (Pintrich and Schunk 2002; Schunk 2001). This refers to the second source of self-efficacy, that is, observing others not only on their successes but also their failures. Bean and Eaton (2002) argue that peer groups that share common academic goals enhance both social and academic efficacy by giving students a structure on which to build their competence and confidence. Schunk (2003) suggests that peer models can be either: (1) mastery models, who flawlessly demonstrate a targeted skill or learning strategy, or (2) coping models, who initially show the typical fears and deficiencies of the observers, but gradually improve their performances and gain self-confidence. For students with low self-efficacy who have little familiarity with the task and who possess self-doubts about their learning capabilities, observing coping models may be particularly effective (Schunk 2003). The outcome is that when students' confidence in their academic abilities increases, they establish positive social relationships with peers and become more integrated into the academic and social life of the university (Bean and Eaton 2002).

Feedback

In terms of social persuasion, providing students with feedback on goal progress is another strategy for developing self-efficacy (Bandura and Cervone 1983). When teachers focus task feedback on what struggling learners did correctly as well as on the steps necessary for improvement, they give learners a map for success, which often strengthens their self-efficacy (Schunk and Zimmerman 1997).

Margolis and McCabe (2006) argue that providing immediate, task-specific feedback is especially important when students are given something new to learn, because this is the stage where mistakes are common. In order to help students avoid repeating these mistakes, tutors are advised to provide immediate feedback in order to correct learners (Heward 2000). Moreover, Chan and Lam (2010) advise that instead of summarising the strengths and weaknesses of students at the end of their performance, teachers should try to provide strategies for improvement during the task. This may be coupled with other techniques, for example, verbal persuasion like 'You can do it' (Schunk and Zimmerman 2007) to convince students of their capability (Chan and Lam, page 53).

Some studies on self-efficacy have also compared the effect of *norm-referenced* feedback (where the student's performance is evaluated in comparison with peers) with *self-referenced* feedback (where the student's performance is evaluated in relation to their own previous performance) (for example Oettingen 1995; Shih and Alexander 2000). These studies showed

that norm-referenced feedback had a negative impact on students' self-appraisal of ability, and thus their academic self-efficacy (Oettingen 1995). One explanation is that norm-referenced evaluation encourages students to demonstrate their ability by outperforming others (Popham 2001) but because students lack the means of controlling the performance of others, their self-efficacy weakens. In contrast, Schunk (1991) stated that self-referenced comparison helps students concentrate on their progress and adopt learning goals, both of which are correlated with improvements in self-efficacy beliefs. In light of such findings, it is recommended that tutors should use self-referenced feedback in assessing student performance (Chan and Lam 2010).

Mentoring

Another form of social persuasion refers to mentoring programmes. These programmes have been used increasingly in higher education and their primary aims have been to improve retention and graduation rates (Anderson et al 1995; Dunn and Moody 1995). However, more recent research suggests that mentors can also make an important contribution to students' social and academic self-efficacy (Bean and Eaton, 2002). Mentors provide incoming students with a wealth of support and information about the new university setting. Mentors may contribute to the development of students' social self-efficacy by providing guidance on how to experience and interpret the campus social environment. In terms of academic self-efficacy, mentors can help students see the validity of their own academic work and study habits, which can then increase their motivation and confidence.

Conclusion

To conclude, this report has conducted an in-depth examination of the research evidence for the role of self-efficacy in student transitions. The evidence reviewed here indicates that self-efficacy is a key skill in facilitating student transitions. The role of self-efficacy was discussed in relation to transitions in and through university: academic study, social life and future career development. In addition, the role of self-efficacy at each transition stage (pre-transition, shock, adjustment and progression) was also discussed. Bandura's theory of self-efficacy was discussed in more detail as a precursor for practical strategies for developing skills in self-efficacy, including efficient goal setting, peer models, feedback and mentoring.

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