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# ‘I hope we can handle it’: A study examining student ability beliefs and motivations before transition.

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**Abstract**

This paper employs the ‘Expectancy-Value Model of Achievement Motivation’ (Wigfield and Eccles, 2000) to identify performance barriers and facilitators for further education students continuing their studies at university. Using this model to understand student ability beliefs and motivations prior to university study identifies potential performance challenges and informs strategies to improve the transition experience from further to higher education. Three focus groups of students planning to transition to university were asked to discuss a number of theoretical strands inherent to the Expectancy-Value Model, such as ability beliefs and motivation components, to determine student potential to perform and persist with higher education. Findings revealed students had decisive and clear motivations for transitioning to university however a number of barriers were perceived which shaped their ability beliefs and could potentially impact their performance. Outcomes of this study inform approaches to enhance the transition experience of students to higher education and are particularly relevant as the Scottish Government aims to remove barriers and widen participation. Additionally, the research findings make an important contribution to informing the approach of university and further education institution (FEI) staff, guiding policy makers and knowledge transfer.

**Keywords:** transition; further education; motivation; Expectancy-Value

## Introduction

This paper makes use of the ‘Expectancy-Value Model of Achievement Motivation’ (Wigfield and Eccles, 2000) to identify performance barriers and facilitators for students in Further Education Institutions (FEIs) progressing to Higher Education (HE). Discussions begin by examining widening participation as a general concept, before proceeding to determine how Wigfield and Eccles’ model can be applied to the ability beliefs and motivations of students as markers for success in the HE context. Using this model as a framework, focus groups were carried out with FEI students at the beginning of their HE journey, to identify perceived barriers, beliefs and motivations, which in turn have been used to inform academic practice.

Articulation as a model of education is broadly used in an international context but this research is particularly relevant as the Scottish Government aims to remove barriers to widening access and participation in HE. The findings of this research can inform best practice approaches at further education (FE) and HE institutions, enhance the experience of articulating students, guide policy makers and aid knowledge transfer.

**Context**

Access to university in Scotland is in crisis as the country continues to have the poorest admission rate to university in the whole of the UK (NUS Scotland, 2014). The Commission on Widening Access (CoWA) was established by the Scottish Government to assist in the removal of barriers to HE and to widen access and retention for those from the most deprived communities. In 2013 the Scottish Funding Council (SFC) encouraged universities to support additional places for students to progress from FEI to university by way of "guaranteed articulation" (Scottish Funding Council, 2013). These students are known as Associate Students and are dually enrolled, first and foremost as FEI students studying for their higher national diploma (HND) but respectively as university students who are working towards third year entry on university campus. Underpinned by the Scottish Credit Qualifications Framework (SCQF) this model of delivery is known as the 2+2 model (SFC, 2013) with students studying for two years at FEIs, followed by two years at university with no loss of time or repeat of study at the same level.

Research carried out by the Scottish Funding Council revealed that FEIs have played a key role in widening participation, anticipating that by 2017 almost eight thousand students will articulate each year from FEIs with a higher national qualification into second or third year at university (Scottish Government, 2014). In 2016 the CoWA recommended the expansion of articulation to support disadvantaged learners to progress to degree study through more efficient, flexible and learner centred models of articulation. Articulation models as pathways into higher education are used as a method for student mobility and inclusion across a number of international contexts. Moodie (2008, p.164) conducts a comparative analysis of students transferring between vocational and higher education and concludes that, through divergent delivery models, ''significant numbers of students transfer between vocational and higher education institutions in the USA, Canada, Scotland and Australia''.

Akin to the Scottish system, community colleges in America offer a gateway to higher education for students who are from low income or first in family backgrounds. Dual enrolment or credit-based transition programs (Bailey, Hughes, and Karp, 2003) are defined as "'high school students dually enrolled at high school and college to earn college credit whilst still at school". Research findings identified increased retention and performance (Allan and Dadgar, 2012), the impact of accessing more rigorous curricula and encouraging students to think about their college future (Lerner and Brand, 2006) and concluded that dual

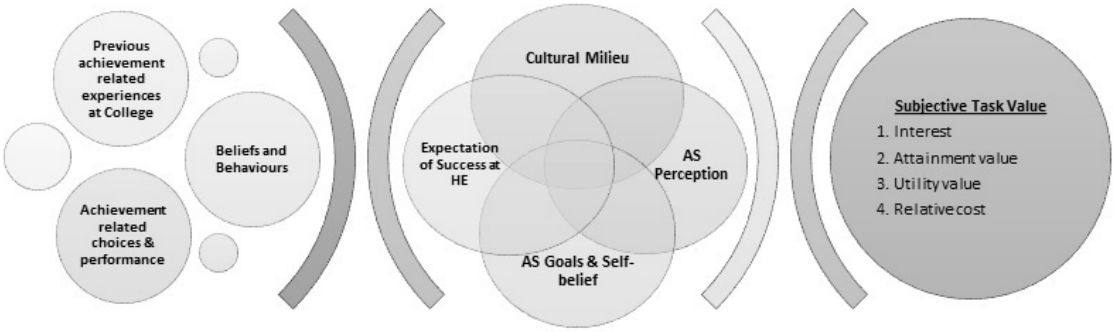
enrolment is a useful strategy for encouraging post-secondary success through increased motivation for academic study (Karp, Calcaagno, Hughes, Jeong, and Bailey, 2007).

Within one post-92 Scottish institution, targeted learning opportunities have been introduced to enhance student progression and attainment by addressing barriers to success in the different HE environment. The Associate Student Project explores student transitions from FEIs to university and affords the students the opportunity to engage with numerous interventions such as drop-in lecturers, induction activities, social events and use of on-campus facilities. All associate students have matriculated at university and consequently are regarded, by the university at least, as university students from their first day at their FEI. It is hoped that this approach not only increases the visibility of associate students but also allows them the opportunity to integrate with other university students on campus, in libraries, the student union and through other facilities, building their social capital and student identity. This early integrative approach has the benefit of increasing motivation and commitment to further study.

**Theoretical Context**

The 'Expectancy Model of Achievement Motivation' (Wigfield and Eccles, 2000) is an appropriate framework to evaluate the propensity for academic success before a student has made the transition from FEI to university. Eccles *et al.* (1983) proposed the earliest incarnation of this model and it has since been developed by Eccles, Wigfield and their colleagues over the ensuing years (see for example Eccles, 1984; Wigfield 1994; Wigfield and Eccles, 1992 and 2000). The model is related to theories such as Bandura's (1997) 'Self-Efficacy Theory', which makes use of expectancy and efficacy beliefs to forecast achievement capabilities, but is most closely connected to Atkinson's (1957) 'Expectancy-Value Theories' which links achievement performance, persistence and choice.

**Figure 1: Based on Wigfield and Eccles' 'Expectancy Model of Achievement Motivation' (2000) and its application to Associate Students (AS).**



Adapting Wigfield and Eccles' (2000) model (featured in Figure 1) to incorporate the backgrounds, perceptions, beliefs and experiences of students during transition allows us to consider the Associate Student Project's interventions and their implications in a visual context. This paper appropriates two principles that are central to the model: 'expectancies' and 'attainment value'. This model defines the term expectancies as an individual's ability beliefs or their perception of their competence, potential to perform and probability of success or failure. While attainment value, or motivation, is classified as an individual's perception of the importance of the activity. Wigfield and Eccles (2000, p.68) posit that together expectancies and attainment value "directly influence" an individual's "performance, persistence and choice". This model, therefore, is useful in determining potential retention and performance rates, and selection of courses, by students in a variety of learning environments.

This model has evolved from a long established expectancy-value tradition but despite this, the model has received criticism for being too simplistic, due to the limited variables considered, and the static nature of the timeframe. Furthermore, Schreiner, Henriksen, Sjaastad, Jensen, and Løken (2010) assert that this type of predictive model negates to acknowledge the role that chance and coincidence plays in our lives. Research outcomes are based on the assumption that goals do not change over time and variables are seen in isolation excluding external factors which may shape choice, persistence and success. For example, there are studies that demonstrate how self-efficacy (Bong, 2005) and achievement goals (Senkno and **H**arackiewicz, 2005) alter thus suggesting that the fixed timeframe of self-assessment inherent to Wigfield and Eccles' (2000) work is problematic. Bøe, Henriksen, Lyons, and Schreiner, (2011, p.41 and p.44) summarises these concerns, "young people's educational choices are likely to be shaped in various complex ways over time" and that "the cultural milieu that affects expectations and subjective task values is constantly changing".

Over a number of decades, Eccles and her colleagues have tested the hypotheses central to their model, while fellow academics have appropriated their work, yielding statically significant results in support of this method as a means to explore a FEI students' potential for success in the university environment (see Wigfield and Eccles, 2000). Variations of the model have been applied widely in a range of international primary and secondary school contexts. For example Xiang, McBride, Guan, and Solmon (2003) makes use of this model to assess children's motivation during physical education, while Wolters (1998) applies it to student motivation in Maths, English and Social Studies. Although, some work such as Richardson and Watt's (2006) study which explores motivations across three Australian Universities does apply the model to HE learning, these studies are in the minority and the model is yet to be applied to articulating students. This paper makes an original contribution by applying Wigfield and Eccles' (2000) theory in a new context and can provide real insight into the potential for FEI students to perform at university. If a student has positive ability beliefs, i.e.

they feel they will succeed at university, and place value on the importance of achieving in this new learning context they are more likely to choose to articulate and, subsequently, persist and perform during their studies.

**Methodology**

This paper applies the 'Expectancy Model of Achievement Motivation' to FEI students, studying at three Scottish institutions, who have completed their application forms and opted to articulate to university study. The model suggests that if a student values HE study and believes they can achieve at university they will succeed. A mixed methods approach is employed utilizing the university's student records for quantitative analysis and the qualitative portion comprising three focus groups. Focus groups were conducted at three FEIs, two involving eight participants and one with six, to determine student performance potential in the university environment within the Wigfield and Eccles (2000) framework. Participants were recruited by open invitation during class time at each FEI and, resultantly, the sample was self-selecting in nature. This study recognizes the limitations of this method of non-randomized sampling and the problems pertaining to generalization of findings, however, it was determined that the personal nature of the themes explored during focus group discussions demands that participants engage through informed choice (Gorad and Taylor, 2004). At all times, ethical considerations were a priority and participants were fully informed about the aims and outcomes of the focus group, informed consent was obtained, and FEI names and student contributions were anonymised to protect the confidentiality of all participants in the study.

As this is a perception based study, which asks students to assess their motivations and commitment to HE study, qualitative methods of data collection are considered most suitable and focus groups allow us to gather informed perspective on the collective views of the target market. In the main, perspective based study is criticised for being subjective in nature. While the localised nature of the sample generates a collective perspective, the specificity of findings means that generalisation of outcomes can be challenging (Pickering, 2008). However, it was thought that the rich insight gained from focus group discussions, would offset any methodological challenges.

Coding was employed as a systematic data reduction technique for synthesizing insight from the focus groups. The recorded focus groups were transcribed, before beginning a manual coding process which involved reading the transcripts multiple times, and using thematic analysis to organise the raw data according to the following pre-defined themes (Corbin and Strauss, 1990, 1998; Basit, 2003):

1) Attainment Value: Motivations
2) Expectancies: Positive Ability Beliefs

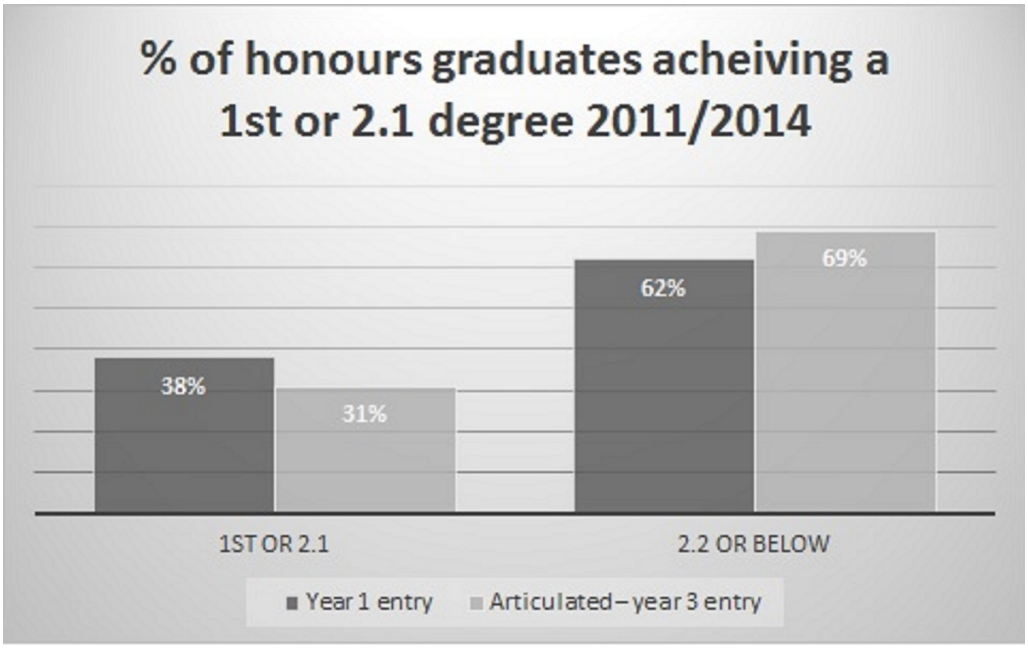
3) Expectancies: Negative Ability Beliefs

These themes were informed by Wigfield and Eccles' model and the coded textual data identified student motivations and ability beliefs, with a view to forecast potential performance and persistence at university, at the beginning of the articulation process.

**Findings and discussion**

To establish a baseline for performance and progression an examination of internal reporting data within the School of Computing at a post-92 Scottish institution was carried out and revealed that articulation models can pose significant challenges for higher education institutions. Analysis of performance indicators of student end of year outcomes over the last three academic years (2011-2014) found that undergraduate students who come through FEI routes are less likely to get a First or 2.1 degree classification than students who entered in Year 1 (See Figure 2). A chi-squared analysis shows that there is a significant difference between articulating students and non-articulating students achieving First's and 2.1's. $\chi^2$ (2, N= 290) = 12.133, $p$<0.05.

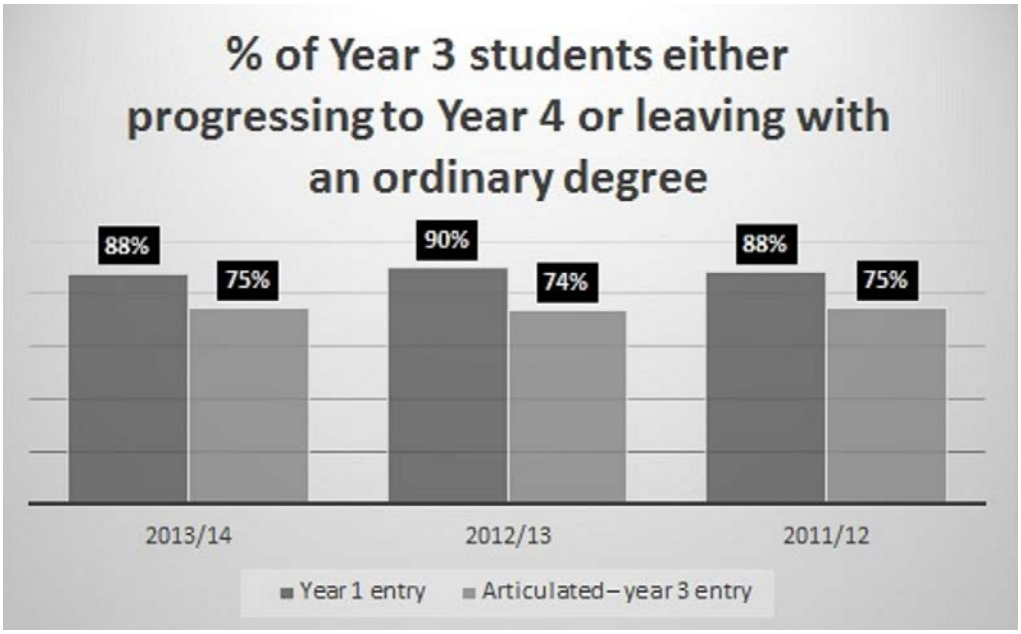
**Figure 2: Percentage of honours graduates achieving a 1st or 2.1 degree classification between 2011/2014**




Additionally, an independent samples t-test was conducted to compare the number of Year 3 direct entrants and continuing students either progressing to Year 4 or leaving with an ordinary degree. Results show that there is a significant difference between the percentage

of university-only, first year entrants and third year articulating entrants progressing to fourth year or leaving with an ordinary degree (t=18.783, p<0.001) (Figure 3).

**Figure 3: Percentage of Year 3 students either progressing to Year 4 or leaving with an ordinary degree**




Articulating students, therefore, are less likely to receive a First or 2.1 degree classification than their continuing counterparts and are more likely to leave with an ordinary degree than progress to fourth year. To understand barriers and facilitators for success in the HE context focus groups were conducted using key concepts from the 'Expectancy Model of Achievement Motivation' as discussion points.

During the focus groups students were, firstly, asked to discuss the reasons why they were choosing to articulate, i.e. the motivation behind their decision, and, secondly, to explore any negative or positive beliefs they held about how they would perform in the university environment. According to Wigfield and Eccles' model these two principles combined account for success and perseverance in any task and, in theory, students with positive ability beliefs and a strong understanding of the reasons they are choosing to articulate will fare better in the university context.

*Attainment Value: Student Motivations for Choosing to Articulate*

Students across all three focus groups displayed a strong understanding of the reason why they were applying for university. The majority of respondents felt that gaining a degree qualification would enhance their career prospects. Jack (all names are pseudonyms) from FEI A proposes that, "With most jobs you do need a degree". After graduating from

university, focus group participants were also keen to pursue apprenticeships and further study to Masters level but the general consensus is encapsulated by Oliver, a student at FEI C, who claims, "the point of going to university is to differentiate yourself from others". However, a small cross-section of participants across all three FEIs were less clear about their reasons for articulating and applied to university as it felt like the next logical step which is a less positive and decisive motivation for committing to a further two years of study.

*Negative and Positive Ability Beliefs*

While, in the main, students had well-considered reasons for applying to university they also perceived a number of academic and social barriers which could impede their success in this new learning context. The shift in learning culture was a commonly cited obstacle to effective academic integration. Josh, a student at FEI B, comments that, "the shift in atmosphere concerns me, we all went from High School, to college and then to university – three complete shifts in atmosphere and the way of learning. I hope we can handle it". This "shift in atmosphere" is characterised by two main concerns: an increase in independent learning and a more demanding workload. These concerns are well documented in a range of academic studies focused on student transitions (Griffiths, Winstanley, and Gabriel 2005; Christie, Cree, Hounsell, McCune, and Tett, 2006 and 2008). As Christie *et al.* (2008, p.570) states, students who transfer to university had to "learn the new rules of the university, so they could engage in a new community of practice". University learning is perceived to be a more autonomous process and focus group participants were apprehensive about access to academic support. Amelia, enrolled at FEI A, comments, "there will be a lack of being able to get advice from the lecturer…that worries me". This concern is raised by Christie *et al.* (2008, p.570) whose focus groups with FEI students joining an elite Scottish university identify a "lack of supportive relationships with staff" and a more "distant dynamic with university staff in contrast to their FEIs, where participation and interaction with staff was embedded in everyday learning practices".

Negative ability beliefs were, also, raised about curriculum matching and whether the FEI syllabus would adequately prepare direct entrants for successful academic transition into the third year at university. "I think at first we will undoubtedly struggle", states Emily from FEI C, "there are bound to be things that the first and second years did that we haven't done at college". This notion is supported by James, who is studying at FEI A, who refers to a perceived higher academic expectation suggesting that, "In college you do the minimum and you pass, at Uni you'd probably fail" and Kate (FEI B) who argues that, "I think coming into third year the demands workwise are a huge jump". These comments support the literature which posits that in general HE learning contexts have "higher expectations about standards of work" (Barron and D'Annunzio-Green, 2009, p.9). However, some issues raised were more practical in nature and related to travel, timetabling and social care issues including

childcare and support for disability. Charlie (FEI A) discusses the implications of class times, “Not knowing means I can’t plan ahead which could affect my performance”.

Aside from academic and practical concerns, students were conscious of social barriers that might affect integration into an already established peer group of third year university students. Establishing membership of the new learning community depends on two determinants, ‘first, participating in social practices to do with learning” but also, “second, participating in the social practices to do with student life” (Christie *et al.,* 2008, p.576). Harry (FEI C) suggests, “people that have been going [to university] for years might have their little cliques, so if you’re going into the group you might feel like an outsider”. According to Cohen and Garcia (2014, p.365) effective academic and social transitioning are inexplicably linked as “a salient social identity can trigger psychological threat and belonging concerns” and these “can produce persistent performance decrements” (see also Zigler and Butterfield, 1968).

Social identity contributes to a person’s self-concept and self-esteem and is formed through group identification and their associated values and emotional significance (Tajfel and Turner, 1979). Studies by Yorke and Thomas (2003) and Harvey, Drew, and Smith (2006) examined the experiences of first year undergraduate students and the onus placed upon the individual students to adapt to their new culture and exhibit their new student identity, forming their identity through their sense of ‘being part of’ – a web of relationships, group solidarity and communal culture (Flum and Kaplan, 2012). For a university student this gradual acceptance of the new identity can be realized through confidence gained after passing the first diet of summative assessment whilst for associate students joining a society or club within the university and being part of the on-campus experience can help build this sense of belonging. For some focus group participants, the identity shifted depending on the environment and perceived benefit with Charlie from FEI A stating “If someone posh asks I’d say I’m a uni student, if it’s my family I’d say college”.

Although, each focus group revealed a number of negative beliefs that might impact on a student’s ability to perform and persist in the university environment, the majority of students when asked how they would fare in this new learning context were positive. Jessica who is studying at FEI B proposes that, “you wouldn’t put us into third year if you didn’t think we were capable”, while Liam at the same institution determines that, “I think we have been given the opportunity to do well and I don’t see why we would suddenly underperform after the transition”.

In the main, students from all three FEIs held positive ability beliefs but it is clear, however, that they also perceive many barriers to their success at university meaning that a support infrastructure is vital to successful student transitioning. Research outcomes should be

actioned, and implemented in academic practice. The potential challenges raised by those students at the start of their articulation journey can inform early intervention strategies to identify, and overcome, any barriers to articulation at 'Pre-Entry level'.

**Scope for future work**

This study appropriates the 'Expectancy Model of Achievement Motivation' (2000) to forecast the potential for students to succeed in the university context after articulating from FEI. While focus group outcomes largely suggest that the sample of students would persist and perform well in the HE environment, historical data would refute this. Only a longitudinal study will determine if this was an accurate prediction for this particular group of students. It is, therefore, essential that focus group participants be monitored throughout their articulation journey to identify whether indicators for success within Wigfield and Eccles' model were successful predictors of persistence and performance at university. In the coming years these can be measured using retention rates and academic grades as markers.

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