

Can students be “nudged” to develop their employability? Using behavioural change methods to encourage uptake of industrial placements

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Abstract

An important aspect of preparing students for the workplace is the need for students to take ownership of their employability and to engage in opportunities which can help them improve and articulate it in advance of embarking on their careers after graduating. Industrial placements, alongside other employability-enhancing opportunities, play an important role in this. Nonetheless, in recent years there has been a decline in the number of students opting to undertake a year in industry. Positioned within the debate surrounding undergraduate employability, this paper will explore nudge theory, and its criticisms, in the context of an intervention implemented by staff at Brighton Business School (BBS), University of Brighton designed to promote students' ownership of their employability to increase the uptake of industrial placements. It also identifies some soft outcomes, notably the breaking down of some typical behavioural barriers to placements and encouraging students to think reflectively. It will conclude by offering recommendations for replicable practice in other universities; specifically a model for developing nudges not only in relation to employability but within higher education more broadly.

Introduction

It is well-recognised that undergraduate work placements provide additional benefit to students and universities in relation to employability (Wilton, 2012; Helyer and Lee, 2014) and outcomes measured by such instruments as the Destination of Leavers from Higher Education (DLHE) survey as well as the annual graduate market report produced by High Fliers. While for many the benefits and positive outcomes of undertaking a year in industry during a degree programme is obvious and even the primary reason for choosing a particular course for some, there has been a decline in the uptake of industrial placements over recent years (Lock *et al*, 2009; Bullock *et al*, 2009; Jones *et al*, 2017). Reasons behind the decline are varied but typically include a combination of instrumental and behavioural barriers as we will explore below. This calls into question how students themselves view employability and the benefits of engaging in employability-enhancing activities. It suggests that undergraduates may not be aware of the importance of taking responsibility for their employability by making the most of the opportunities available to them (Hepworth *et al*, 2015).

We propose that one way of increasing the uptake of industrial placements and thereby underlining the value of being responsible for one's employability is by designing interventions based on nudge theory (Thaler and Sunstein, 2008). Already applied successfully in many areas of higher education, it appears that such an approach can achieve positive outcomes. We will explore the ideas behind the theory and demonstrate how it has been applied at Brighton Business School.

Nudge theory

Thaler and Sunstein (2008) in their seminal work on a variant of behavioural change they termed 'nudge' theory, lay out their approach as a means of influencing behaviour to improve people's lives for the better. A key tenet of this is not using force or coercion to generate change but to provide choices that do not forbid other options or significantly change economic incentives (*ibid*, 6). Those providing such choices are known as 'choice architects' (*ibid*, 3) and it is their role to design an intervention that is easy to avoid (*ibid*, 6), but that will increase the likelihood of those targeted making a choice that is in line with the intended outcome (Oliver, 2013). This is known as a 'nudge'. There is plenty of debate in the literature around the philosophical underpinnings and ethical considerations involved in this approach (Hausman and Welch, 2010; Heilmann, 2014). The scope of this paper does not allow for in-depth exploration of this but we do address briefly the main concern that nudges manipulate rather than inform choice (White, 2013; Wilkinson, 2013). These arguments are usually located in the contexts of public policy and express a range of social, political, and moral objections to the concept of nudging (Furedi, 2011; Selinger and Whyte, 2011; Goodwin, 2012). Hansen and Jespersen (2013), whilst identifying similar arguments, also recognise that not all nudges are equal. They realise the flaws in each side of the debate and posit that evaluating whether a nudge is a form of manipulation may rest on how far it can be recognised as transparent (2013: 18). Of the four conceptual models of nudges they develop, one which is transparent and results in change as a result of reflective thinking on the part of those being influenced is classed as an 'empowerment' nudge (Hansen and Jespersen, 2013: 24). The intervention we discuss below adheres to this model.

Despite criticism, nudge theory has also received positive reception in many areas, including the workplace environment (Hall-Ellis, 2015), informed consent in healthcare (Brooks, 2013; Cohen, 2013), lifestyle (Marlow, 2014), and environmental policy (Ölander and Thøgersen, 2014). There also exists a growing body of literature on nudges in higher education. For example, Fritz (2017) explores how the use of learning analytics might nudge students' responsibility for learning; Smith *et al* (2018) discuss how emailed grade nudges explaining how an assignment will affect students' final marks improved homework performance; and Pugatch and Wilson (2018) identify how nudging students to

engage in peer tutoring services saw a significant increase in take up. Each of these examples corresponds well to the transparent, empowerment-style nudge as described above.

Employability, however, appears an area of higher education that remains relatively unexplored in terms of implementing nudges. Interestingly, Yorke and Knight's (2006:12) assertion appears to precede the underlying themes of Thaler and Sunstein's (2008) work:

Students whose self-theories are apparently fixed may, given appropriate 'messages', be encouraged to revise them in the direction of malleability. Revision is more likely when students are presented with a consistent affirmation that the sort of intelligence that is valued in the workplace differs from the supposedly-fixed intelligence which is widely believed to determine success or failure.

Their suggestion ties in closely with the ethos of nudge interventions and thus forms the basis of intervention discussed below. Additionally, Deutschman's (2007) framework for change aligns with these beliefs, examining how facts, fear, and force as agents of change are misconceptions. He describes three keys to change: relate, repeat, and reframe, each of which focus on forming a new relationship with something that inspires or sustains hope (2007: 14-15). The concept of "reframe" is particularly useful here as it correlates with learning new ways of thinking, which is essentially what we aim the nudge to provoke.

Employability

'Employability' takes on many different definitions. It is recognised throughout the literature as: the propensity of students to obtain a job (Harvey, 2001); a form of work-specific adaptability (Fugate *et al*, 2004); the set of skills, knowledge, understanding and attributes that make a person more likely to choose occupations in which they can be satisfied and successful (Dacre Pool and Sewell, 2007). The complexity of the concept is outlined by Andrews and Higson (2008: 413) who note that it is both difficult to articulate and define. Later Pegg *et al* (2012: 20) find that employability raises a "definition dilemma".

Contributing to this dilemma is the difference in perspective which governs how employability is viewed and the tensions it thereby creates. Employers largely see it as 'work readiness', i.e. the ability of graduates to hit the ground running by being in possession of the skills, knowledge, attitudes, and commercial understanding that are immediately valuable (Archer and Davison, 2008; Mason *et al*, 2009). For students and graduates however, it is most often seen as the "set of achievements...that makes [them] more likely to gain employment and be successful in their chosen occupations" (Knight and Yorke, 2003: 5). The Higher Education Academy's (2015) framework for employability advises developing a shared understanding and view of employability to facilitate

staff, employer, and student engagement. Although Clarke (2017:9) goes some way by suggesting its reconceptualisation as “the human capital, social capital, and individual behaviours and attributes that underpin an individual’s perceived employability, in a labour market context, and that, in combination, influence employment outcomes”, a definition of employability combining both outlooks has yet to be achieved.

As such, higher education institutions (HEIs) essentially straddle two perspectives. On one hand they must respond to employers’ requirements in producing graduates equipped with the skills necessary to perform well in the workplace (Pollard *et al*, 2015), but at the same time, they must also instil in students the ability to gain those jobs in the first place (Helyer and Lee, 2014). Nonetheless, we found it important to draw upon at least one definition to provide a scaffold for the research presented here regarding the uptake of industrial placements. Our approach is based on Harvey’s (2003: 3) description:

Employability is not just about getting a job...Employability is more than about developing attributes, techniques or experience just to enable a student to get a job, or to progress with in a current career. It is about learning...In essence, the emphasis is on develop critical, reflective abilities, with a view to empowering and enhancing the learner.

It is also informed by Watts’ (2006: 15) position that employability consists of career management skills, including making and implementing decisions that determine one’s career and upholds Pegg *et al*’s (2012) focus on the personal development aspects inherent in the notion of employability. We seek to achieve this by employing methods developed from behavioural change approaches (Thaler and Sunstein, 2008). Before drawing specifically on how we have implemented this in our own institution, it is useful to consider what takes place in the context of developing students’ employability and before decisions to undertake industrial placements are made.

Enhancing employability: a multitude of options

Careers and employability services

Across most disciplines, today’s students are exposed to a wide variety of career-enhancing opportunities during their time at university, of which four strands can be identified. First, there is provision of careers and employability services usually found on-campus. As there is already a body of literature exploring higher education careers services (Watts, 1997; Harris, 2001; Rowley and Purcell, 2001) there is no need to revisit it here. However, in broad terms these services allow students to access information, advice, and guidance on career pathways. They are catalysts for

employer-university engagement and play a significant role in linking students with employers (Lowden *et al*, 2011). In some instances they also offer support beyond graduation.

Employability in the taught curriculum

Second, opportunities for students to enhance their employability are often embedded into the taught curriculum. The aim of this is typically to encompass academic and 'practical' intelligence (Yorke and Knight, 2006) and it can occur in a variety of ways: through individual or a set of core modules, across a whole curriculum, or as a bolt-on (Cranmer, 2006). It can also be compulsory or optional. There are certainly some tensions at the institutional level regarding implementation, with many arguing that this may dilute discipline or subject curricula (Speight *et al*, 2013) and others casting doubt on the effectiveness of classroom-based employability teaching and learning (Mason *et al*, 2003; Cranmer, 2006). However, with a documented skills gap in the graduate labour market (Jackson, 2013; Mason *et al*, 2009) it has become increasingly important to adjust curricula and pedagogy to enhance graduate skill outcomes (Jackson, 2014).

Extra-curricular activities

Third, students can boost their employability through participating in an extensive array of extra-curricular activities (ECAs). These are usually offered by HEIs but can also be sought independently. Some of the most well-recognised options involve undertaking some form of volunteering (Holdsworth, 2010; Holdsworth and Brewis, 2014); playing sport (CBI/NUS, 2011; Thompson *et al*, 2013); and part-time work (Muldoon, 2009; Gbadamosi *et al*, 2015). Also included but less well-documented in the literature is students' access to numerous clubs, societies, networking events, guest lectures, as well as the development of their own interests (Watson, 2011). Roulin and Bangerter (2013) examine further the role of ECAs and assert that students are attuned to their importance as a means of not only developing but showcasing their employability, particularly with regard to competitive jobs markets. Importantly, Clark *et al* (2015), through discussing the value of ECAs with alumni, highlight the long-lasting affect these can have on one's employability.

Placements, internships, and work-based learning

Fourth, a long tradition of industrial placements, internships, and work-based learning provides students with another means of enhancing their employability (Andrews and Higson, 2008; Hall *et al*, 2009; Lowden *et al*, 2011). These may take many forms, such as short-term, year-long, mandatory or optional, paid or unpaid. Securing a placement typically necessitates engagement in the majority of the opportunities discussed above, particularly during the year prior to the placement. Aside from

developing the skills and competencies that come under the umbrella of employability, a placement can also provide a head start for graduates in the early stages of their career (Wilton, 2012) as well as a higher starting salary (Brooks and Youngson, 2016). It builds on the foundations gained and experienced in traditional classroom settings and encourages students to apply this knowledge in a practical setting (Jackson, 2015). A vast range of opportunities to do so exists across large, multinational firms, through to smaller, local companies.

These strands all serve to help students understand, articulate, and develop their employability. But do students appreciate that this array of activities underpins the central goals of improving their work readiness and ability to seek and gain employment?

Taking ownership of employability

Lack of student engagement (for various reasons) and difficulties with implementation can restrict the value of the above-mentioned opportunities. For each of the strands discussed above there is an inherent expectation that students will actively choose to benefit from them. However, research has demonstrated otherwise. For example, Archer and Davison (2008) find that students are not proactive in their use of careers and employability services, with Greenbank (2011) noting that they may choose not to make use of them at all. Tymon (2013: 853), whilst considering if HEIs are “able, willing or designed to develop employability”, finds that even when such activities are embedded into the curriculum, many first and second year students do not seem to engage with them. Similarly, some students may even try to avoid experiencing them (Atlay and Harris, 2000). Stevenson and Clegg (2011) also note the critical importance of extra-curricular activities as means of enhancing employability but find that students mainly participate in them not for reasons of employability and building their future selves but to maximise the opportunities of the present. Additionally, Pegg *et al* (2012) observe that widening participation, part-time, and mature students are less likely to take part in extra-curricular activities.

Finally, many barriers to undertaking placements exist. These obstacles, among others, often include: wanting to graduate quickly without adding another year onto their studies (Morgan, 2006); belief that they already have enough work experience (Bullock *et al*, 2009); unrealistic expectations, lack of experience, and poor academic performance (Balta *et al*, 2012). In addition to these largely instrumental factors, in practice we discover on a regular basis that there are also numerous behavioural barriers at play in this decision-making. These may include but are not limited to lack of confidence (Bullock *et al*, 2009), disinterest or doubt (Aggett and Busby, 2011), and not appreciating the longer-term benefits (Brooks and Youngson, 2016). Consequently, a number of students on

sandwich degrees often opt out of their placement year and move from a four- to three-year pathway (Little and Harvey, 2006).

These findings hint at the fact that students may not be taking responsibility for their own employability and do not share the view of careers and academic staff that they need to engage fully with employability activities (Hepworth *et al*, 2015: 48). Low engagement and lack of responsibility can be further affected by way in which employability is typically addressed. Because employability as a learning outcome can often be the result of a combination of approaches (as outlined above), students may not see the connection between each one (Rae, 2007: 608). As a result, opportunities for students to develop their employability cannot exist in isolation. Promoting students' ownership of their employability is necessary in order to help them understand how and why these skills are being developed, and why this is important (Baker and Henson, 2010).

Brighton Business School context

At Brighton Business School (BBS), and no doubt in other departments and institutions, this reluctance to engage with the placements strand of employability (and subsequently elements of the other strands) is often further displayed in students' enrolment patterns. Looking specifically at Business courses, students can choose to follow a three-year route without placement or a four-year route including placement. This paper focuses on the Business (and associated pathways) students who opt for the three-year route. On average these students account for 30% of the total Business cohort each year.

Business students who study at BBS on the three-year pathway fall into two different categories. There are those who, despite being provided with information and guidance regarding the value of a year in industry (by either staff or peers), adhere to their decision not to do a placement. There are then those who, either by the end of their first year or once they enter the second year, have realised the value of a placement year. These students, providing their first-year mark meets or exceeds an internally set benchmark of 60%, typically self-select a transfer onto a four-year route to include a placement. However, the rate of self-selection has declined over the last four academic years, dropping from 31 students in 2014-15 to only three in 2017-18.

Within the cohort of students who do not change course, there are also those whose first-year results exceed the 60% benchmark, demonstrating they are academically capable of undertaking a placement but still do not choose to transfer to the four-year pathway. These students often appear resolute in their decision not to undertake a year in industry. It is this group who most often display the behavioural barriers to participating in placements as discussed above. The declining number of students choosing to transfer to the four-year route suggests that behavioural barriers are becoming

more embedded in students' decision making, which in turns reflects a lack of ownership of their employability. Consequently, our research has centred on an intervention rooted in nudge theory, as a means of breaking down some of the barriers.

Research design

This research project was undertaken in two parts. First, based on the central principles of nudge theory (Thaler and Sunstein, 2008) we designed a simple, straightforward intervention to nudge the behaviour of a group of students identified as academically capable of undertaking an industrial placement. Following ethics approval, this involved sending a letter (by post and email) inviting them to change from a three-year degree without placement to a four-year route including a placement. The letter explained that they had achieved the results necessary to do so and outlined some of the benefits to undertaking a placement. The wording of the letter was chosen carefully to remain in line with the practice of nudge theory; that is, to ensure those being influenced understood it was optional and that they were not being forced to change anything:

...In light of your results we would like to offer you the option of changing from the three-year non-placement route to the four-year Business Management option with one year's work placement.

In addition the nudge was transparent, fully explaining the benefits of transferring to the four-year course. Finally, it was easy to ignore if the student so wished. They did not have to do anything if they did not want to change course and only needed to take action if this was something they decided to pursue.

Second, following a pilot, we conducted a survey with students who had received the intervention in the last two academic years. Prior to completion, participants were made aware that their responses would remain anonymous. Using Qualtrics, students were asked to complete seven questions based on the intervention, whether or not they acted upon it, and how it made them feel. Space for any additional comments was also provided.

Findings

In the academic year 2016-17, 34 students on non-placement pathways were invited to change to a Business Management (and associated pathways) degree including a placement. In 2017-18, a further 67 students were invited to do the same. Table one below shows these figures as part of the wider BBS context (data for 2018-19 are included but do not form part of the research presented here):

Year	Total no. Business students (3-year route)	No. students 'nudged' to change to placement route	No. of students responding to nudge
2016-17	127	34	14
2017-18	105	67	40
2018-19	110 (t.b.c.)	46	t.b.c.

Table one: number of students nudged and responding to nudge

Of those who responded to the nudge not all succeeded in securing a placement. However, the data for 2016-17 show that 43% of responding students undertook a placement, contributing to 4% of all placed students that year. In 2017-18, 28% of responding students also undertook a placement, contributing to 11% of all placed students.

The response rate for the survey on the nudge was far lower than expected at 11%. This is possibly due to it being issued at a busy time for those on placement and at the beginning of the examinations period for those who had yet to start theirs. However, looking at the qualitative data gathered, we can identify some emerging trends. To start, 55% of respondents indicated that at the start of their degree programme they had not intended to do a placement. While some respondents claimed that they felt they had left it too late to change course or that they simply “did not see any additional benefits to what [they] wanted from their degree”, 73% stated that they decided to change their course after receiving the nudge (letter).

Those who responded positively to the nudge noted that it made them feel very positive. Answers to the question “how did the invitation to change to management make you feel” included:

Excited

Capable of coming out with a strong degree

Good – it gave me a new opportunity

Encouraged and supported

Wanted to start thinking about a placement year

However, one respondent gave a more negative answer, stating that they thought the “university was trying to get me to change because it would suit them better”.

The question “in what way(s) did being invited to change course help you” also prompted positive responses:

It gave me a confidence boost that the university believes I’m capable of carrying out a placement year.

It allowed me to start thinking about what career I wanted when I left university.

It gave me confidence in my abilities.

Made me realise that it was a great way to get more industry experience which would benefit me coming out of university.

It helped me think about how it would look for future employers.

It helped me decide to try and get a placement year.

Discussion

Behavioural change

These responses are interesting in that they reveal the behavioural barriers the students may have been experiencing. Comments referencing confidence, excitement, encouragement, and support as a result of receiving the nudge perhaps indicate that these elements had been lacking beforehand and thus may have contributed to the decision not to undertake a placement as outlined by Bullock *et al* (2009), Aggett and Busby (2011), and Balta *et al* (2012). Therefore we can argue that the nudge contributed to breaking down some of the behavioural barriers often experienced by students when thinking about placements, echoing Pugatch and Wilson's (2018: 160) findings that students change their behaviour in response to specific messages. As the nudge also positively affected some students' outcomes (i.e. they secured a placement) we can also tentatively suggest that this intervention has been more successful in changing behaviour than the other employability-related activities the responding students had already been exposed to.

Validity of the nudge

The responses also demonstrate a change in students' thinking. The comments referring to how the nudge made respondents realise, think or decide indicate reflective thinking, or the deliberate and conscious processing of information as associated with self-awareness, agency, autonomy, and volition (Hansen and Jespersen, 2013: 13). That this is evidenced in reaction to the nudge suggests that the nudge itself cannot be seen as an act of manipulation (Sunstein, 2015). With evidence that placements are beneficial (Wilton, 2012; Helyer and Lee, 2014), and students still opting out of undertaking them we can suggest that their rational decision-making processes and autonomy were already not intact before the nudge was applied. This adds further validity for executing the nudge in the first place (Nys and Engelen, 2016).

The development of reflective thinking also contributes to an overall improvement in students' employability. Remembering Harvey's (2003) assertion that employability is not just about getting a job, but being able to develop critical and reflective abilities, we propose that the act of nudging targeted students has helped enhance their employability regardless of whether or not they secured a placement. As well as empowering students, we have also contributed to a reframing (Deutschman, 2007) of the way they think.

Determining success

Following the suggestion of Kusters and Van der Heijden (2015: 285) we evaluate the success of this nudge by focusing on both hard and soft outcomes. The hard outcome is the increase in the number of placements undertaken as a result of selected students receiving the nudge. Whilst accounting for small percentage of the total number of placed students we view this as a success for two reasons: one, the nudge did what we hoped it would do and increased the number of placements; two, the percentage of placements it helped secure saw a year on year increase from 4% to 11%.

However, perhaps more useful than statistics are the soft outcomes generated by the nudge. In addition to breaking down some behavioural barriers and prompting reflective thinking as discussed above, we can also identify a change in overall attitude towards students' own self-theories as suggested by Yorke and Knight (2006). Here we note that the receivers of the nudge began thinking of themselves as more capable and more open to opportunities, thereby becoming more malleable (Yorke and Knight, 2006: 12). There is also a change in terms of thinking ahead to the future.

Whereas prior to the intervention most (55%) students were interested only in the three-year route, after the nudge their comments demonstrated a revised view. They felt capable of achieving a good degree, began looking ahead to what career they might follow after university, and started to think what future employers might want. Obviously it is impossible to determine with absolute certainty that they would not have engaged in such thought processes without receiving the nudge. However, by following Kusters and Van der Heijden's (2015: 286) logic that nudges can also be evaluated against an alternative strategy (in this case: no direct action taken to encourage academically capable students to undertake a placement) we can suggest that the nudge has influenced this change in thinking.

A final soft outcome can also be found in the increase in the number of students who engaged with BBS' placements team. In total, 59% of 'nudgees' in the 2016-17 group and 60% of 'nudgees' in the 2017-18 group made contact with the placements team. Following the introduction of a new placements website in 2017-18, the same 60% of nudged students also set up a profile and had a least one face-to-face meeting with a placements officer. Earlier we outlined engagement with careers or employability services as one of the employability-enhancing opportunities students sometimes do not make use of (Archer and Davison, 2008; Greenbank, 2011). After implementing the nudge we can assert that while it may not have resulted in all influenced students securing a placement, there was a significant increase in the number of them taking steps to be responsible for their employability.

Conclusion and recommendations

We suggest that nudge theory in the specific context of undergraduate employability can be used to successfully increase the uptake of industrial placements. In this sense it has been an important tool for encouraging students to take responsibility for their employability. We recognise the limitations of our small-scale study and realise that the results cannot be generalised. However, the combination of hard and soft outcomes indicates that there is some value to this approach. We recommend, therefore, that a transparent, ‘empowerment’ (Hansen and Jespersen, 2013) nudge be considered in other institutions where academically capable students have opted out of the placement option at enrolment stage.

We also suggest that a broader application of nudge theory may well suit many other circumstances where not only change but the empowerment of students is necessary. We know from Deutschman’s (2007) ideas that a wide broadcast of facts is not always successful in effecting change, therefore targeted and structured nudges appear a practical means of achieving it. We conclude by offering a model for adapting nudge theory that may suit not only the employability agenda but also other contexts in higher education. It includes initial steps for defining reasons for change and establishing why it has not already occurred; moves through to the nudge itself, encompassing behavioural change (i.e. the response to the nudge), and the need for it to be relatable, transparent and empowering; then finally outlines the expected outcomes of the intervention, such as evidence of reflective thinking, positive change in self-theory, and signs of students starting to take responsibility (whether for employability, learning or any other aspect):

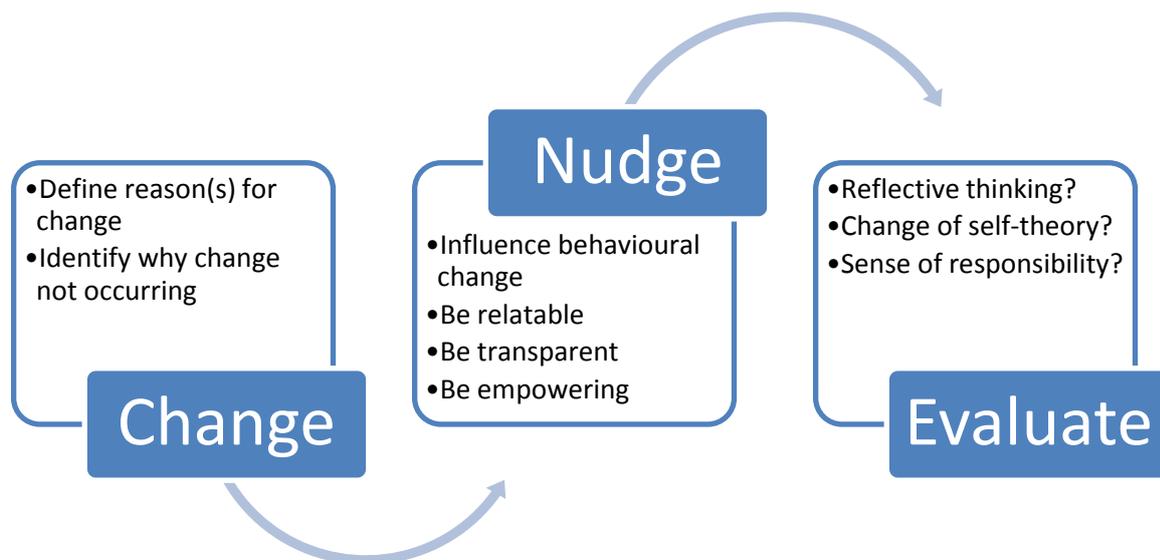


Figure one: influencing behavioural change in higher education students

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