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Intolerance of uncertainty and its impact on university students' confidence, awareness and experience with employer selection tests

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ABSTRACT

Intolerance of Uncertainty (IU) is a disposition typified by negative reactions to uncertainty and may influence how university students engage with career development opportunities. IU can be 'Prospective' or 'Inhibitory'. Prospective IU is characterised by a 'desire for predictability', whilst Inhibitory IU is characterised by inaction due to 'uncertainty paralysis'. In this study, we surveyed 568 students to examine whether Inhibitory and Prospective IU (as measured by the IUS-12) were associated with students' attendance at careers' events and their awareness of, and confidence and experience with, commonly used graduate employer selection tests. Results revealed that higher inhibitory IU scores were associated with lower awareness, confidence and experience with employer selection tests but not attendance levels. Prospective IU scores were positively associated with confidence and experience levels. These novel findings demonstrate that IU is a factor impacting on students' employability. Recognising the role of inhibitory IU and cultivating a tolerance to uncertainty may help to improve students' employability.

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Careers; employability; selection tests; Intolerance of Uncertainty; personality

Introduction

Student employability is a key priority for universities. This is partly driven by the fact that the employment outcomes of students contribute to universities' positions in national (Oliver 2024) and international league tables (O'Callaghan 2024), which influences how they are perceived by prospective students, staff and potential investors (Gibbons, Neumayer, and Perkins 2015). Moreover, in many countries, there is also government pressure on universities to ensure that the degrees they offer represent a good investment of time and money for their students. For example, in England, regulatory sanctions are possible for those universities' courses where the % of graduates gaining graduate employment are considered to be low (Bradley and Quigley 2023; Office for Students

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2022). Thus, there are serious practical and reputational repercussions to universities that neglect the employment prospects of their students.

Obtaining graduate employment is also a key concern for many university students (Gedye, Fender, and Chalkley 2004). However, gaining graduate employment has become increasingly difficult due to the increased number of students entering Higher Education (Bolton 2024) and the limited number of graduate jobs that are available. This poses a challenge for graduates seeking to gain employment *and* graduate recruiters who need to determine the most suitable graduates for their employers in an efficient manner. One way of addressing this issue from a recruiter perspective is by administering a range of employer selection tests (Branine 2008). These tests constitute activities or tasks that are designed to assess the competencies and skills of applicants in a time and cost-efficient manner. Previously, an applicant might be expected to complete selection tests such as an application form, curriculum vitae and an in-person interview. However, the range of tests many applicants must complete has increased significantly (CIPD 2022). Nowadays, graduates may be faced with completing a range of additional selection tests including numerical, verbal, logistical and situational judgement tasks, personality profiling, presentations, preliminary interviews (i.e. before a final interview), role-play exercises and possible attendance at an assessment centre. Failure of any one of these will most likely result in the applicant being rejected.

To ensure students are prepared for these tests, university careers services often offer selection test workshops and invest in packages which allow students to practise with these tests and receive feedback. Universities also encourage and promote work experience opportunities, such as internships to facilitate students' career readiness (Bawica 2021). Engagement with these services and opportunities, however, is variable and to some degree is dependent on the volition of students, and the method each university and degree programme has chosen to address employability within their programme. Bradley, Quigley, and Bailey (2021) demonstrated that typically less than 50% psychology students at a UK university engaged with the careers' services at their university and less than 10% attended workshops specifically focused on selection tests. One suggestion for the low attendance at these sessions could be that many students simply do not need support with these tests as they are already aware of them and capable of passing them. However, the findings of Bradley et al. (2021) suggest this is not the case. In their study, over half of the final-year students they sampled failed to pass a standard verbal reasoning test and over 80% of the students failed to pass a numerical reasoning test.

Considering these findings, Quigley et al. (2024) suggested that students may simply lack knowledge and experience about these crucial tests and their frequency of usage. As such, Quigley et al. examined students' awareness, confidence and experience with selection tests that are commonly administered by popular graduate recruiters. These authors found that students' lacked experience with selection tests, had middling confidence with these tests and misjudged how often they were administered by graduate employers, even though there are many opportunities to learn about and practise these tests during students' time at university. Given these findings, it is important to identify factors that may well contribute to students' lack of engagement and experience with selection tests, considering the key role they play in the recruitment process and the consequences of failing to pass these tests. Indeed, the importance of ensuring that students have adequate preparation and knowledge about selection tests is recognised

in key models of employability such as the CareerEDGE model (Dacre Pool and Sewell 2007).

One such factor that may well contribute to students' lack of awareness and experience with selection tests and engagement with career planning and careers' services more generally is Intolerance of Uncertainty (IU; Birrell et al. 2011). IU is a transdiagnostic and transsituational construct that reflects a dispositional tendency to respond negatively to uncertain situations across contexts rather than being confined to specific disorders or circumstances (Dugas, Koerner, and Freeston 2025). IU is deemed to consist of two sub-components: 'Prospective' or 'Inhibitory' IU. Prospective IU is characterised by a desire for predictability, whilst Inhibitory IU is characterised by inaction due to 'uncertainty paralysis' (Carleton, Norton, and Asmundson 2007). IU also influences students' approach to careers and employability. This is perhaps unsurprising when one considers the high degree of uncertainty associated with thinking about one's career. For many students, simply deciding on a career path is a daunting task that is rife with uncertainty (Gordon and Steele 2015). This is understandable considering the scale of the decision and the consequences of choosing a particular career path on one's wellbeing, income and social status (Redekopp and Huston 2018; Thompson and Subich 2006). Even for students with a clear committed career plan, there is often a high degree of uncertainty associated with the steps necessary to achieve their plan (e.g. passing an essential qualification or test) and the global factors influencing the job market. The role of uncertainty in career planning is recognised in central careers and employability theories, such as the dual-process theory of career decision-making (DTC; Xu 2023) and *Planned Happenstance Theory* (Mitchell, Al Levin, and Krumboltz 1999). DTC directly addresses the role of uncertainty in the career decision-making process. Indeed, a central goal of DTC is to manage and reduce the threat of decision uncertainty by ruling out unsuitable career paths, identifying and examining suitable career options and arriving at an interim (or anchor) career choice until *saturation* (i.e. a good enough option) is achieved (Xu 2023). According to *Planned Happenstance Theory* (Mitchell, Al Levin, and Krumboltz 1999), the uncertainty inherited in career planning should be embraced with an open-minded approach, where students are encouraged to be curious, persistent, flexible, optimistic and risk-taking so that they can be responsive to the inevitable unplanned events which occur and the subsequent opportunities which will arise.

For many students, however, the uncertainty associated with thinking about their career negatively impacts their career planning. For instance, Arbona et al. (2021) examined IU and its relationship with career indecision with a sample of college students from the United States. IU was measured using participants total scores from the IUS-12 (Carleton, Norton, and Asmundson 2007). Career indecision was measured by the Career Decision-making Difficulty Questionnaire (CDDQ; Gati and Saka 2001) which measures respondents' lack of readiness, lack of information, and inconsistent information in relation to career decision-making. These authors found that IU was positively associated with the different components of the CDDQ, and that anxiety mediated the relationship with IU and career indecision (also see Chen and Zeng 2021; Xu and Tracey 2014, 2015; Zhao et al. 2024). Recently, Doğanülkü (2024) also examined the relationship between IU (as measured by the IUS-12) and careers engagement among university students in Turkey. Careers engagement was measured by the Career Engagement Scale (CES; Hirschi, Freund, and Herrmann 2014) which contains questions such as the

extent to which respondents have 'actively sought to design [their] professional future' and 'cared for the development of [their] career'. The authors found that higher IU scores were negatively associated with scores on the CES.

The above findings clearly demonstrate that IU impacts on career indecision and career engagement as measured by the CES. To our knowledge, however, there is no current research which has examined how IU, and its different dimensions (Inhibitory and Prospective) are specifically related to students' attendance at university careers' events and their awareness, confidence and experience with key employer selection tests that graduates will likely encounter when applying for jobs.

IU and its sub-dimensions may influence students' engagement with these specific career-related activities in distinct ways. Prospective IU, characterised by worry and a desire for predictability, may influence the extent to which students seek out information and develop awareness of available employer selection tests. Inhibitory IU, characterised by hesitation or inaction in uncertain situations, may be linked to variations in students' confidence and experience with selection tests. Identifying the link between IU and these different employability activities could help inform employability interventions with students.

The current study therefore sought to examine the relationship between Inhibitory and Prospective IU on students' awareness, confidence and experience with common employer selection tests and their attendance at university careers' sessions.

Given the lack of research explicitly exploring the relationship between the different dimensions of the IU and students' attendance at careers' events, and their awareness, confidence and experience with selection tests, our research was exploratory. Additionally, given that engagement in part-time work, internships and volunteering has been consistently associated with greater career awareness, confidence and preparedness for recruitment processes (Kapareliotis, Voutsina, and Patsiotis 2019) we also included these as covariates in the present study.

Method

Participants

The sample consisted of 568 university students. Participants ranged from 18 to 67 years of age ($M = 21.84$; $SD = 5.16$). The sample was primarily female ($n = 448$, 78.87%), with 118 (20.77%) males and 2 non-binary participants (.35%). Participants were either in their first, ($n = 97$, 17.08%), second ($n = 287$, 50.53%) or third year ($n = 133$, 23.42%) of their undergraduate studies or were postgraduate students ($n = 51$, 8.98%). Most of the participants were studying at Swansea University ($n = 539$, 94.89%). The remainder were studied at other UK universities ($n = 29$, 5.11%). Most of the participants were studying psychology ($n = 440$, 77.46%). The remainder studied a range of different degree programmes ($n = 128$, 22.54%). More than half of the sample had a part-time job ($n = 349$, 66.44%), whilst 59 participants (10.39%) had completed an internship or work placement, and 134 participants (23.59%) had volunteering experience. Participants were recruited using a convenience sample from Swansea University's Participant Pool and the researchers' social media networks. Participants either received Participant Pool credits for their participation or took part voluntarily.

Ethical approval for the study was received from Swansea University's Ethics Committee. The sample size was based on an a priori power analysis calculation using G-Power 3.1 (Faul et al. 2009). To detect a small effect (Cohen's $f^2 = .02$) of the IU sub-scales on each of our outcome measures (i.e. attendance, awareness, confidence and experience), with an alpha (α) of .05 and Power ($1 - \beta$) of .80, results indicated that 395 participants would be needed.

Apparatus and materials

Qualtrics was used to host an online survey examining students' employability engagement and experience.¹

First, participants were presented with socio-demographic questions pertaining to their age, gender, university, year of study, degree programme and any work experience completed during their degree (i.e. Part-time Job, Internship/Work Placement and Volunteer Work).

Selection method awareness, confidence and experience

Participants were next presented with the following text: *'Employers often use selection methods to identify suitable candidates for a job. Which of the selection methods are you aware of graduate employers using? Please be honest with your answers [select all that apply]'*. Participants were then presented with the following selection methods in list form: *'Application Form, Assessment Centres, Curricula Vitae, Interview, Logical Reasoning Tests, Numerical Reasoning Tests, Personality Profiling, Preliminary Interviews (i.e. video/pers. comm.), Presentations, Roleplay/group Exercises, Situational Judgement Test, Verbal Reasoning Tests'*. If they were not aware of any of these methods, they could select: *'I have not heard of any of these job selection methods'* and would receive a score of 0. If they had selected all these tests, they would receive a score of 12.

Students were then presented with each of the selection methods noted above and the following text: *'How confident would you feel completing each of these methods?'*. Students provided their ratings on a 4-point Likert-Scale (1 = *'Not Confident at all'*, 2 = *'Not very confident'*; 3 = *'Quite confident'*; 4 = *'Very confident'*). Participants' average confidence score across the 12 selection tests was calculated per participant.

Next, participants were presented with the aforementioned list of job selection methods and asked to *'Please select the following job selection methods you have experience of completing?'*. If they selected none of these, they would receive a score of 0. If they had selected all of these, they would receive a score of 12.

Attendance at careers events

Participants were also asked about their engagement with career activities. Specifically, participants were asked whether they had *'attended any of the following careers and employability related activities at university? [Select all that apply]'*. The following list was then presented *'Assessment Centre Workshops, Careers Fair / Jobs Fair, CV writing and interview preparation workshops, One-to-one guidance on job searching, Presentation Workshops, Psychometric Testing workshops'*. If they selected none of these, they would receive a score of 0. If they had selected all of these, they would receive a score of 6.

Intolerance of Uncertainty (IUS-12)

To measure IU, a short-form Intolerance of Uncertainty Scale (IUS-12) was administered which consists of 12 items that measures Prospective (7 items) and Inhibitory (5 items) IU. Prospective IU measures one's desire for predictability, example items including 'Unforeseen events upset me greatly'. Inhibitory IU measures the extent to which uncertainty results in avoidance behaviour or inaction. Participants' responses are recorded on a 5-point Likert Scale (1 = *Not at all characteristic of me*; 5 = *Entirely characteristic of me*). The IUS-12 has robust psychometric properties (Carleton, Norton, and Asmundson 2007). Internal consistency for the scale ($\alpha = 0.89$) and each of the sub-scales within our sample was good (Prospective: $\alpha = 0.80$; Inhibitory: $\alpha = 0.85$). A confirmatory factor analysis (CFA; with a DWLS estimator) of the two-factor structure of IUS-12 in the present sample was also conducted ($\chi^2(53) = 569.77$; $p < .001$). Fit indices indicated acceptable model fit overall. The CFI (.916) suggested an adequate comparative fit of the two-factor model, and SRMR (.072) and TLI (.90) were within acceptable thresholds. Although RMSEA is elevated to (.10), this index is known to overestimate misfit in CFA models with relatively short scales and large samples. Taken together, these results, alongside the strong theoretical grounding and prior validation of the Prospective and Inhibitory IU dimensions (Carleton, Norton, and Asmundson 2007), provide support for the two-factor structure of the IUS-12 in the present sample.

Design

A cross-sectional correlational survey design was employed.

The primary outcome variables were students' (1) awareness, (2) confidence and (3) experience with the 12 selection tests detailed previously, and (4) students' attendance at the careers' activities and events described previously. Awareness, experience and attendance variables were produced by summing up all selection tests or careers events each participant selected and calculating the mean across participants. The variable confidence was calculated by averaging participants responses on the 4-point Likert scale across the 12 selection tests. These variables and the associated methods of scoring are consistent with Bradley, Priego-Hernández, and Quigley (2022) and Quigley et al. (2024).

The covariates were the sum scores of Prospective and Inhibitory IU, participants' gender (male vs. female), year of study and domicile (i.e. whether they were UK or international students),² and whether they had experience of Volunteer work, a Part-Time Job and/or Internships/Work placements.

Finally, we examined whether our socio-demographic variables (i.e. gender, domicile, year of study and work experience: volunteering, part-time job and internships/work placements) were associated with Prospective and Inhibitory IU. Age was not included due to the narrow concentration of ages which is typical in a student population.

Procedure

Participants first clicked on a Qualtrics survey link (via the Participant Pool or a Social Media Advert) where they were presented with an information sheet and consent form before being asked to provide socio-demographic information (e.g. age, gender and year

of study) and details about their work experience. Participants were then asked to select the selection tests they were aware of, and their confidence and experience with each of the selection tests and their attendance at careers events. The IUS-12 then followed. Participants were then presented with a debrief form.

Results

JASP (version 0.18.3; JASP Team 2024) was used to analyse the data. The dataset is available on the Open Science Framework (<https://osf.io/dfcx9/overview>). Prior to analyses responses were checked for straight-lining. A total of 16 participants were removed for providing the same response to all items of the IUS-12, leaving a total sample of 552 respondents. Data were analysed using frequentist and Bayesian analyses. An alpha (α) of .05 was adhered to for frequentist analyses. Default priors were used to calculate Bayes Factors₁₀ (BF₁₀; Rouder et al. 2012), where values >1, <1 and = to 1, respectively, represent support for the alternative hypothesis, the null hypothesis or neither hypothesis (Lee and Wagenmakers 2014).

Table 1 displays the mean scores, standard deviations and range for Inhibitory and Prospective IU and participants' awareness, confidence and experience of selection tests, attendance at careers events and year of study. Pearson correlations between these variables and point biserial correlations between these variables and gender (0 = Female; 1 = Male), students' domicile (0 = UK; 1 = International) and whether they had experience of Volunteer work (0 = No; 1 = Yes), a Part-Time Job (0 = No; 1 = Yes) and Internships/Work placements (0 = No; 1 = Yes) are also presented.

To examine the nature of the relationships between these variables multiple linear regressions were performed. Covariates included sum scores of Inhibitory and Prospective IU, gender (Female or Male), year of study (1, 2, 3, Postgraduate), students' domicile (UK vs International) and whether they had experience of Volunteer work (0 = No; 1 = Yes), a Part-Time Job (0 = No; 1 = Yes) and Internships/Work placements (0 = No; 1 = Yes). All these covariates were entered simultaneously into the regression models. Outcome variables included participants' awareness, confidence and experience of selection tests and attendance at careers events.

Multiple regressions were also performed to assess the extent to which sociodemographic factors, such as gender, year of study, students' domicile and whether they had experience of Volunteer work (0 = No; 1 = Yes), a Part-Time Job (0 = No; 1 = Yes) and Internships/Work placements (0 = No; 1 = Yes) were associated with Inhibitory and Prospective IU.

The Variance Inflation Factors (VIFs) and tolerances for all regression models fall within the acceptable range: VIFs <2 and tolerance values >.2. Full regression tables for all analyses are reported in the supplementary analyses.

Awareness of selection tests

Participants' awareness of selection tests score could vary from 0 to 12. A score of 0 would indicate no awareness of any selection tests, whilst a score of 12 would indicate awareness of all the selection tests we detailed. On average, participants were aware of half of the tasks ($M = 6.63$; $SD = 2.91$).

Table 1. Means (standard deviations) and Pearson correlations between the subscales of the IUS-12, attendance at careers events, selection test awareness, confidence, experience and year of study are displayed. Additionally, point biserial correlations between these variables, gender (0 = Female; 1 = Male), students' domicile (0 = UK; 1 = International) and whether they had experience of Volunteer work (0 = No; 1 = yes), a Part-time job (0 = No; 1 = yes) and Internships/work placements (0 = No; 1 = yes) are also displayed.

Scale	Mean (SD)	Range	1	2	3	4	5	6	7	Gender	Domicile	Volunteer	Part-time job	Internship
<i>IU Inhibitory(1)</i>	13.36 (4.59)	5–25	–	.69***	–.04	–.14**	–.28***	–.16***	.00	–.10*	.02	–.03	.00	–.05
<i>IU Prospective(2)</i>	21.67 (5.14)	9–35		–	.02	–.06	–.11**	–.02	–.00	–.07	–.01	.00	.00	.01
<i>Attendance(3)</i>	0.93 (1.13)	0–6			–	.00	.14**	.15***	.01	.08	.20***	.13**	–.01	.16***
<i>Awareness(4)</i>	6.63 (2.91)	0–12				–	.24***	.47***	–.01	–.02	–.11**	.07	–.04	.10*
<i>Confidence(5)</i>	2.65 (.49)	1–4					–	.33***	.03	.17***	.06	.00	.06	.13**
<i>Experience(6)</i>	4.31 (2.46)	0–12						–	.13**	.06	.01	.03	.17***	.15***
<i>Year of Study(7)</i>	2.24 (.84)	1–4							–	.11*	.30***	.08	.09*	.22***

Note: * denotes statistical significance < .05; ** denotes statistical significance < .01; *** denotes statistical significance < .001.

A multiple linear regression (using the 'enter' method) was performed with the following covariates: participants' sum Inhibitory and Prospective IU scores, Gender (0 = Female; 1 = Male),³ Year of study (1, 2, 3, Postgraduate), Domicile (0 = UK; 1 = International) and whether they had experience of Volunteer work (0 = No; 1 = Yes), a Part-Time Job (0 = No; 1 = Yes) and Internships/Work placements (0 = No; 1 = Yes). Participants' sum awareness of selection test scores was entered as the outcome (i.e. the total number of selection tests participants was aware of). The regression model was significant, $F(8, 541) = 3.98, p < .001$, adjusted $R^2 = .04$, $BF_{10} = 4.50$. Inhibitory IU ($\beta = -0.17, p < .01$) was negatively associated with participants' awareness of selection tests. UK students also had a greater awareness of selection tests than international students ($\beta = -0.15, p < .01$) and internships/work placements were also positively associated with a greater awareness of selection tests ($\beta = -0.12, p < .01$). All the other covariates were non-significant (smallest $p = .14$).

Attendance at careers events

Participants' attendance at careers' events score could vary from 0 to 6. A score of 0 would indicate no attendance at any careers' events, whilst a score of 6 would indicate attendance at all the careers' events we detailed. On average, participant attendance at careers' events was low ($M = 0.93$; $SD = 1.13$).

A multiple linear regression (using the 'enter' method) was performed with the following covariates: participants' sum Inhibitory and Prospective IU scores, Gender (0 = Female; 1 = Male), Year of study (1, 2, 3, Postgraduate), Domicile (0 = UK; 1 = International) and whether they had experience of Volunteer work (0 = No; 1 = Yes), a Part-Time Job (0 = No; 1 = Yes) and Internships/Work placements (0 = No; 1 = Yes). Participants' attendance at careers' events was entered as the outcome (i.e. the total number of careers events participants attended). The regression model was significant, $F(8, 541) = 5.32, p < .001$, adjusted $R^2 = .06$, $BF_{10} > 100$. International students had reported greater attendance at careers events than UK students ($\beta = 0.19, p < .001$). Volunteer work ($\beta = .09, p < .05$) and Internships/work placements ($\beta = .11, p < .05$) were also positively associated with participants' attendance. All other covariates were non-significant (smallest $p = .052$).

Confidence with selection tests

Participants' confidence with selection tests score could vary from 1 [Not at all Confident] to 4 [Very Confident]. On average, participants' confidence ratings were middling ($M = 2.65$; $SD = .49$).

A multiple linear regression (using the 'enter' method) was performed with the following covariates: participants' sum Inhibitory and Prospective IU scores, Gender (0 = Female; 1 = Male), Year of study (1, 2, 3, Postgraduate), Domicile (0 = UK; 1 = International) and whether they had experience of Volunteer work (0 = No; 1 = Yes), a Part-Time Job (0 = No; 1 = Yes) and Internships/Work placements (0 = No; 1 = Yes). Participants' confidence with selection tests scores was entered as the outcome (i.e. participants' average confidence score across the 12 selection tests). The regression model was significant, $F(8, 541) = 9.82, p < .001$, adjusted $R^2 = .11$, $BF_{10} > 100$, with Inhibitory IU ($\beta = -0.35, p < .001$) negatively associated with participants' confidence with selection tests. Whilst

Prospective IU ($\beta = 0.14, p < .01$) was positively associated with participants' confidence with selection tests. Interestingly, the bivariate correlation between Prospective IU and confidence was negative ($r = -.11, p < 0.05$). However, upon including the Inhibitory IU in the regression model, the coefficient for Prospective IU became positive. This suggests that the Inhibitory IU is acting as a suppressor variable, revealing a positive relationship between Prospective IU and confidence when the variance related to Inhibitory IU is controlled for.

Additionally, males also reported greater confidence than females ($\beta = 0.16, p < .001$) and experience of a Part-Time job ($\beta = .10, p < .05$) and internship/work placement ($\beta = .09, p < .05$) were also positively associated with confidence. All the other covariates were non-significant (smallest $p = .33$).

Experience of selection tests

Participants' experience of selection tests score could vary from 0 to 12. A score of 0 would indicate no experience with any of the selection tests, whilst a score of 12 would indicate experience with all the selection tests we detailed. On average, participants had experience with less than half the selection tests ($M = 4.31; SD = 2.46$).

A multiple linear regression (using the 'enter' method) was performed with the following covariates: participants' sum Inhibitory and Prospective IU scores, Gender (0 = Female; 1 = Male), Year of study (1, 2, 3, Postgraduate), Domicile (0 = UK; 1 = International) and whether they had experience of Volunteer work (0 = No; 1 = Yes), a Part-Time Job (0 = No; 1 = Yes) and Internships/Work placements (0 = No; 1 = Yes). Participants' experience of selection tests scores was entered as the outcome (i.e. the total number of selection tests participants had experience of completing). The regression model was significant, $F(8, 541) = 7.01, p < .001$, adjusted $R^2 = .08, BF_{10} > 100$. Inhibitory IU was negatively associated with participants' experience with selection tests ($\beta = -0.25, p < .001$). Whilst Prospective IU ($\beta = 0.15, p < .01$) was positively associated with participants' experience with selection tests. Additionally, the year of study was also positively associated with experience of selection tests ($\beta = .09, p = .05$) along with experience of a part-time job ($\beta = .16, p < .001$) and internship/work experience ($\beta = .12, p = .01$). All the other covariates were non-significant (smallest $p = .17$).

Socio-demographic covariates of Inhibitory and Prospective IU

To examine if socio-demographic factors were associated with Inhibitory and Prospective IU, two standard multiple linear regressions were performed with Inhibitory and Prospective IU as the respective outcomes. Covariates variables included Gender (Female or Male), Year of study (1, 2, 3, Postgraduate), Domicile (UK or International) and experience of Volunteer work (0 = No; 1 = Yes), a Part-Time Job (0 = No; 1 = Yes) and Internships/Work placements (0 = No; 1 = Yes). Age was not included due to the narrow concentration of ages which is typical in a student population. The overall regression model with Inhibitory IU as the outcome was not significant, $F(6, 543) = 1.22, p = .30$, adjusted $R^2 = .00, BF_{10} = .00$. All the individual covariates were non-significant (smallest $p = .36$) except for Gender ($\beta = -.10, p < .05$), with females reporting higher inhibitory IU than males. The regression model with Prospective IU as the outcome was not significant,

$F(6, 543) = .50, p = .81$, adjusted $R^2 = 0.00$, $BF_{10} = .00$. All covariates were non-significant (smallest $p = .09$).

Discussion

The current study examined whether IU and its different dimensions, Inhibitory and Prospective, were associated with students' awareness, confidence and experience with selection tests and their engagement with careers services. Inhibitory IU, which is characterised by behavioural paralysis, was negatively associated with students' awareness, confidence and experience with selection tests, but it was not associated with students' engagement with university careers' services. Prospective IU was positively associated with students' confidence and experience with selection tests, but it was not associated with awareness or their engagement with careers services. Additionally, we also found that experience of volunteer work was positively associated with attendance at careers events. Whilst experience of part-time work was positively associated with confidence and experience of selection tests. Interestingly, experience of internships/work placements was positively associated with awareness, confidence and experience of selection tests and attendance at careers events. We also found that UK students had a greater awareness of selection tests than international students, but that international students had greater attendance at careers' events than UK students. Males were also more confident than females with selection tests, and students further into their studies reported more experience of selection tests.

Previous studies have demonstrated that IU, when measured as a unifactorial construct, is associated with career indecision and proactive careers behaviours as measured by the CES (Arbona et al. 2021; Chen and Zeng 2021; Doğanülkü 2024; Zhao et al. 2024). Our findings provide further evidence that IU has a role in influencing students' employability. Critically, however, our findings specifically demonstrate the differential impact of the sub-dimensions of IU. That is, Inhibitory IU had a negative influence on students' awareness, confidence and experience with selection tests, whilst Prospective IU had a positive impact on students' confidence and experience with selection tests. On reflection, it is perhaps unsurprising that Inhibitory IU is negatively associated with awareness, confidence and experience whilst Prospective IU is positively associated with confidence and experience. This pattern aligns with theoretical understanding of the different IU dimensions: Inhibitory IU is linked to avoidance behaviours likely to reduce engagement, while Prospective IU relates to active information seeking, potentially enhancing confidence and experience (Birrell et al. 2011; Carleton, Norton, and Asmundson 2007). The fact that neither Inhibitory or Prospective IU were associated with students' attendance is somewhat surprising though, given our other findings and those of other studies (Arbona et al. 2021; Doğanülkü 2024). However, it is possible that a floor effect might be confounding the results regarding attendance, as on average our sample of students attended less than one university careers activity or event (also see Bradley, Quigley, and Bailey (2021)). This raises further questions about how to improve attendance at these events. Work-related experience (particularly internships) being positively associated with selection test awareness, confidence and experience and attendance at careers events, also aligns with previous literature demonstrating the value of these experiences for students' employability (Bawica 2021; Kapareliotis, Voutsina, and Patsiotis 2019). This

also underscores the importance of accounting for such experiences when examining psychological correlates of employability.

Taken together, the results of the current study suggest that the role of uncertainty (specifically inhibitory IU) should be explicitly recognised in careers and employability initiatives and students should be encouraged to embrace and accept the inevitable uncertainty associated with career planning. This approach aligns with the dual-process theory of career decision-making (DTC; Xu 2023) and *Planned Happenstance Theory* (PHT; Mitchell, Al Levin, and Krumboltz 1999). Both these theories recognise the key role uncertainty plays in the career-decision making process. In the DTC efforts are made to reduce uncertainty and within PHT (Mitchell, Al Levin, and Krumboltz 1999) students are encouraged to be open-minded and flexible about the inevitable career uncertainty they will encounter. Students are also encouraged to engage in reframing exercises where they are challenged to view uncertainty opportunistically and to take proactive careers behaviours rather than engaging in avoidance behaviours (which is characteristic of Inhibitory IU).

There are clear practical implications that can be derived from this study and these theoretical approaches. For instance, when experiencing career uncertainty students should be encouraged to accept that this is part of the process but seek to take steps to reduce the uncertainty by learning about different career paths that are suitable for them and selection tests they will likely encounter. This is something careers' advisors and academic staff can make explicit to students during employability conversations and interventions to cultivate a tolerance to uncertainty. Career planning should also be embedded in degree programmes to ensure there is mandatory engagement with employability and that the topic of uncertainty can be directly addressed (Bradley, Priego-Hernández, and Quigley 2022). However, we also acknowledge that the onus is on students themselves to accept career uncertainty and take meaningful proactive career behaviours.

There are some limitations to the current study though that need to be considered. Firstly, it is important to note that not all students wish to gain graduate employment, or indeed any form of employment following their degree (e.g. they may be planning to undertake a gap year or further study) and therefore may feel that engaging with career services or learning about employment selection tests is not necessary. That said, even those students who delay entering the job market will eventually need to do so and would benefit from engaging with careers services. Secondly, the current study did not include other anxiety-relevant constructs, such as trait anxiety, neuroticism or worry. As a result, it is not possible to determine whether the observed associations are specific to the IU or reflect broader anxiety-related tendencies. Recent work has highlighted the importance of distinguishing IU from related constructs and of examining in greater specificity how IU relates to emotion regulation and uncertainty-related processes (Morris 2023). It is also important to acknowledge that other relevant psychological and contextual factors, such as career self-efficacy and personality traits, were not included in this study. Finally, the use of a convenience sample in this study restricts the generalisability of the findings and the overall amount of variance accounted for within the regression models is relatively small. However, these are both common features in social science research (Ozili 2023). Future research should seek to collect objective careers readiness measures from careers services which provides details on students' attendance at careers events or whether they have

engaged with university tools that enable them to practise selection tests. Combining this data with self-report data would improve the validity of these findings. Future work would also benefit from including additional anxiety-related measures alongside IU to more directly assess construction specificity and increase the amount of variance accounted for. Whilst sampling a more diverse range of students from a greater range of universities and countries would improve the generality of these findings.

In conclusion, the current study demonstrated Inhibitory IU was negatively associated with students' awareness, confidence and experience with employer selection tests, whilst Prospective IU was positively associated with students' confidence and experience with employer tests. These results reveal that IU is an important factor to be mindful of when considering student employability and that students should be encouraged to cultivate a tolerance to uncertainty.

Notes

1. This study is part of broader project on student employability where additional measures are taken, however, here we only report measures that were key to the current study for conciseness.
2. There are a range of different ways to determine whether a student is an international student. Here we determined students' domicile based on whether they reported themselves to be UK or international students.
3. Two participants identified as non-binary and were not dummy coded in the multiple regression models.

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Data availability statement

The full dataset is available via the Open Science Framework.

Ethical approval

Ethical approval was granted by a UK university.

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