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Building confidence in university students from year 1 to year 2

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ABSTRACT

Understanding how university students build confidence in key transferable skills during their early academic years is essential for improving educational outcomes and employability. This study investigated the development of students' confidence in their skills over their first two academic years at university. We measured confidence levels of students in key transferable skills and how these levels change from their first to their second year. A survey was conducted using opportunistic sampling twice with the same cohort of students, once in their first year (N = 128) and once in their second year (N = 148). Data were analysed using t-tests in SPSS. Results indicated significantly higher confidence in several skills in the second compared to first year of study. The findings provide insights for curriculum development and support systems to enhance student learning experiences and employability. The study underscores the importance of both educational institutions and students in developing skills and confidence.

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Acquisition

Skill acquisition; higher education; confidence; transferable skills; employability

SUBJECTS Critical Thinking & Study Skills; Study Skills; Skill

Introduction

Employability and skills development are crucial in the current Higher Education (HE) landscape (Murray et al., 2022; Otermans et al., 2023). Over the last couple of decades, the requirements in the labour market have radically changed, particularly in the context of new ways of organising work in the 21st century (Habets et al., 2020; Otermans et al., 2023). The importance of developing transferable skills that are required in the job market has been highlighted in both educational policy discourse and in the practice of HE (Tuononen et al., 2022). A study conducted by Habets et al. (2020) indicated that in order for graduates to be considered 'employable', they need to be thoroughly trained in 21st century skills, and that their development of their skills should continue to expand within HE. Universities need to follow a more comprehensive teaching and learning approach, with a focus on both technical and soft skills including integrating leadership skills into the curriculum (Daley & Baruah, 2021). A study conducted by Aranda et al. (2022) aimed to analyse and compare the importance of acquisition of basic skills in university. Their results showed that students rated the acquisition of basic skills as highly important, irrespective of the type of degree they were studying.

Pereira (2013) highlights the importance of universities in the development of transferable skills and indicates the need to reflect upon the role of university. Students' extracurricular activities allow them to gain experience and knowledge which cannot be provided within the classrooms and are also important elements of a university experience. Some of these activities are part-time jobs, internships or placements. Companies and HE institutions must work together not only to increase students' awareness of the importance of soft skills but also on guiding them on taking individual responsibility to acquire and develop essential skills to adapt continuously to the change in labour market and improve their employability chances (Succi & Canovi, 2020). Other researchers consider that it is the responsibility of

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educational institutions to develop generic skills (Cassidy, 2006). Part-time jobs have also been shown to enhance graduate competencies (Trung & Swierczek, 2009).

Employers require graduates to be more work-ready and trained in teamwork, communication, and other professional skills (Murray et al., 2022). Communication skills are one of the most important skills that are essential for students as they need to interact with their peers inside and outside lecture halls, when working on group assignments and for class presentations (Iksan et al., 2012). Students arrive in HE with a range of generic and subject-specific skills which they are expected to use and build upon during their degree courses (Whittle et al., 2010). Teaching and learning approaches such as group discussions can be coupled with assessment strategies that include tasks such as group work to enhance the development of skills such as communication (Trung & Swierczek, 2009). Teamwork skills are also considered essential for personal, academic, and professional achievement, so universities are increasingly trying to integrate them into their syllabuses (De Prada et al., 2022) or through using pedagogical methods such as Team-Based Learning (Otermans et al., 2024).

In addition, more authentic assessment tasks, where learning must be applied, such as case studies, aid the development of skills and boost readiness for tasks one might encounter in the graduate world (Tree et al., 2024). Deliberate practicing of certain activities that help strengthen skills should be a fundamental principle that guides the instruction and training of students (Baines et al., 2024; Kellogg & Raulerson, 2007). Dolce et al. (2020) aimed to understand if there is a concurrence between graduates' perceptions and companies' expectations of the skills that are needed. They concluded that graduates attributed a higher level of importance to certain specific skills such as task orientation, motivation, self-awareness, and interpersonal relationships. Yet, they rated the importance of these soft skills higher than their own possession of these skills. This in turn indicates graduates perceive their degree as not being adequate to develop skills required for the workplace. Soft skills have the ability to predict success in life, produce success, and have a prominent place in an effective portfolio of public policies (Heckman & Kautz, 2012). They help format proactive and entrepreneurial behaviours (Pereira, 2013). Joining clubs and associations, taking leadership roles, reading self-development books and watching videos are some initiatives that students can use for soft skills acquisition, to compliment the teaching they receive (Mwita et al., 2023).

There are various methods through which a university student can develop these important skills. Methods include lectures, group projects and extra-curricular activities. The soft skills that can be developed through educational games are critical thinking, creativity, team management, emotional intelligence, social skills, conflict management, flexibility in consciousness, and stress resistance (Kostikova et al., 2021). In addition, Trung and Swierczek (2009) concluded that skills could be effectively developed through activities such as group assignments and learning approaches such as case studies or group discussions.

Despite much research acknowledging the importance of skills development, there has been little consideration of students' confidence in these skills. Students having confidence in their skill and ability is beneficial to their learning in HE. Students' self-confidence not only impacts their learning but also their participation, anxiety, seeking goals and developing an interest in lessons (Akbari & Sahibzada, 2020). Putwain and Sander (2016) focused on whether students' goals can affect their confidence. The study concluded that students' confidence in their grades, studying, and attendance increased slightly over their first year of university, yet there was an initial drop in confidence related to studying and attendance. At the start of first year, their confidence levels could be grouped based on their achievement goals, but these groupings didn't affect their confidence by the beginning of their second year. Therefore, the achievement goals students had when they started university didn't in turn impact their confidence. Confidence may also in turn impact your grade as students who were confident produced an association with achieving higher marks (Parsons et al., 2009).

Moreover, through the transition from their first to their second year, students may have higher confidence in skills as they have been exposed to a wider variety of learning methods and practical work experience opportunities. This may be due to number of skills obtained and being able to utilise these skills more often across the years in HE. However, despite the suggestions that confidence is vital for optimal learning and skills development, this has not been empirically tested, nor is a conceptual framework available. Therefore, in this study, we aim to assess students' confidence in a number of key skills in their first and second year of study. Thus, the research question of this study is: What are students' confidence levels in their skills throughout their first two years of study? This leads to the following hypotheses:

- H1a: Students' confidence in their skills is significantly different from the mid-point measure for students in year 1.
- **H1b:** Students' confidence in their skills is significantly different from the mid-point measure for students in year 2.
- H2a: Students have significantly higher levels of confidence in their skills in year 2 compared to year 1.
- **H2b:** For each student, their level of confidence in their skills is significantly higher in year 2 compared to year 1.

The pedagogical implications of this study are that by assessing how students' confidence levels develop over their first two years of study, as educators we can better tailor programmes of study that help students to build confidence as they acquire their new skills. This is crucial as the development of transferable skills is key for future graduate jobs, and confidence in these skills influences development.

Methods

Participants

Participants in this study were volunteers recruited from the cohort of students at the authors' institution. In year 1, 146 students took part in the study, and 158 took part in year 2. One student was removed due to not consenting to take part, and 27 participants were removed due to providing duplicate responses (17 in year 1, 10 in year 2). Therefore, the final dataset contained 128 students in the first year and 148 in the second year. Participant demographics by year of study can be seen in Table 1, showing a mixture of students with and without placement took part. Of the 128 students in year 1, 36 (28.1%) had never formally studied psychology before, 73 (57.0%) had studied A Level psychology, 13 (10.2%) had studied an Access or other course that included psychology, 4 (3.1%) had studied GCSE psychology, and 2 (1.6%) had studied International Baccalaureate in psychology. The previous qualifications of the students were 86 (67.2%) A levels, 15 (11.7%) BTEC, 7 (5.5%) Foundation programme, 6(4.7%) International Baccalaureate, and 14 (10.9%) other. In terms of whether students felt it was important that their psychology degree is BPS accredited, 5 (3.9%) responded Don't know, 1 (0.8%) responded No, not important, 9 (7.0%) responded Yes, slightly important, 39 (30.5%) responded Yes, very important and 74 (57.8%) responded Yes, extremely important. With regard to satisfaction with academic experience prior to university 11 (8.6%) were very dissatisfied, 15 (11.7%) were somewhat dissatisfied 19 (14.8%), were neither satisfied nor dissatisfied, 57 (44.5%) were somewhat satisfied, and 26 (20.3%) were very satisfied. Data collection took place between 12th September 2022 to 5th May 2023 for year 1 students and from 16th September 2023 to 17th April 2024 for the year 2 students. This means that the year 1 students in 2022-2023 became year 2 students in 2023-2024 and therefore the same cohort of students participated in the study at two different time points.

Questionnaire

Data were collected via an online survey using JISC (www. JICS.org). At the beginning of the survey, participants were asked about their programme, type of study (with or without placement) and a few questions regarding their studies (eg whether they had previously studied psychology). This was followed by

Table 1. Participant demographics by year of study.

Year/Programme of study	With placement	Without placement
Year 1 – BSc Psychology	48 (37.5%)	64 (50.0%)
Year 1 – BSc Psychology (SHE)	5 (3.9%)	11 (8.6%)
Year 2 – BSc Psychology	53 (35.8%)	77 (52.0%)
Year 2 – BSc Psychology (SHE)	4 (2.7%)	14 (9.5%)

4 👄 P. C. J. OTERMANS ET AL.

a skills audit, where students had to rate their confidence in each of 28 skills, from 1 = Not confident at all to 5 = Completely confident. This was followed by their ranking of the importance of five key skills from 1 = Most important to 5 = Least important.

Data analysis strategy

The data were analysed using IBM SPSS Statistics version 28 (IBM Corp, 2021). There was no missing data. An alpha level of .05 was used for all statistical tests.

Procedure and ethical considerations

The University Ethics Committee gave approval to conduct the study (Ref: 38533-LR-Aug/2022- 41254-1 and 44575-LR-Aug/2023- 46731-1). Participants were presented with a participant information sheet then an informed consent form. After reading these, they gave their consent and started the study. Participants were informed that they could withdraw their participation at any point, should they wish, without penalty. They were informed their data would remain confidential and anonymous. At the end of each survey, participants were given a debrief form with links to services, thanked for their participation, and received one participation credit in recompense for their time.

Results

Descriptive statistics for confidence in skills for students in year 1 can be seen in Table 2. Two-sided ttests were conducted to determine whether confidence in each skill differed significantly from the scale mid-point ('somewhat confident' = 3) (Hypothesis 1a) (Table 3). Bonferroni correction for multiple comparisons was applied, with the corrected p value of .0017 used. A number of the skills did show mean ratings that differed significantly from the midpoint, indicated with an asterisk in Table 3. A number of skills were rated significantly higher than the midpoint rating: 'writing an essay', 'writing a professional email', 'creating a poster', 'organisational skills', 'problem-solving skills', 'being resilient', 'understanding

Table 2. Mean, standard deviation and frequency ana	ysis for each of the 28 skills for students in year 1
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		Not confident	Slightly	Somewhat		Completely
Skill	$Mean \pm SD$	at all	confident	confident	Fairly confident	confident
Writing an essay	3.29 ± 0.86	2 (1.6%)	23 (18.0%)	44 (34.4%)	54 (42.2%)	5 (3.9%)
Writing a professional email	3.61 ± 1.01	3 (2.3%)	18 (14.1%)	27 (21.1%)	58 (45.3%)	22 (17.2%)
Creating a poster	3.41 ± 1.08	6 (4.7%)	20 (15.6%)	38 (29.7%)	43 (33.6%)	21 (16.4%)
Giving an oral presentation	2.58 ± 1.23	34 (26.6%)	26 (20.3%)	35 (27.3%)	26 (20.3%)	7 (5.5%)
Speaking up in teaching sessions	2.54 ± 1.20	35 (27.3%)	34 (26.6%)	31 (24.2%)	22 (17.2%)	6 (4.7%)
Talking to someone who I don't know	3.16 ± 1.19	16 (12.5%)	20 (15.6%)	34 (26.6%)	44 (34.4%)	14 (10.9%)
Networking	2.92 ± 1.13	19 (14.8%)	21 (16.4%)	48 (37.5%)	31 (34.3%)	9 (7.0%)
Organisational skills	3.50 ± 1.03	3 (2.3%)	21 (16.4%)	34 (26.6%)	49 (38.3%)	21 (16.4%)
Problem-solving skills	3.66 ± 0.87	1 (0.8%)	12 (9.4%)	35 (27.3%)	61 (47.7%)	19 (14.8%)
Giving interviews	2.79 ± 1.11	16 (12.5%)	37 (28.9%)	42 (32.8%)	24 (18.8%)	9 (7.0%)
Being resilient	3.52 ± 0.91	1 (0.8%)	16 (12.5%)	44 (34.4%)	49 (38.3%)	18 (14.1%)
Understanding feedback	3.91 ± 0.82	1 (0.8%)	7 (5.5%)	22 (17.2%)	70 (54.7%)	28 (21.9%)
Providing feedback to someone else	3.26 ± 0.97	4 (3.1%)	27 (21.1%)	38 (29.7%)	50 (39.1%)	9 (7.0%)
Critical thinking	3.63 ± 0.91	1 (0.8%)	13 (10.2%)	40 (31.3%)	53 (41.4%)	31 (16.4%)
Asking for help	3.16 ± 1.15	10 (7.8%)	29 (22.7%)	36 (28.1%)	37 (28.9%)	16 (12.5%)
Working in a group	3.51 ± 1.07	5 (3.9%)	18 (14.1%)	35 (27.3%)	47 (36.7%)	23 (18.0%)
Writing a CV	3.26 ± 1.14	10 (7.8%)	23 (18.0%)	36 (28.1%)	42 (32.8%)	17 (13.3%)
Managing my time	3.27 ± 1.18	12 (9.4%)	18 (14.1%)	42 (32.8%)	35 (27.3%)	21 (16.4%)
Planning my time	3.47 ± 1.16	9 (7.0%)	17 (13.3%)	33 (25.8%)	43 (33.6%)	26 (20.3%)
Having a good study-life balance	3.15 ± 1.08	8 (6.3%)	29 (22.7%)	40 (31.3%)	38 (29.7%)	13 (10.2%)
Trying something new	3.62 ± 1.12	5 (3.9%)	19 (14.8%)	27 (21.1%)	46 (35.9%)	31 (24.2%)
Responsiveness to change	3.39 ± 1.06	5 (3.9%)	23 (18.0%)	35 (27.3%)	47 (36.7%)	18 (14.1%)
Data analysis	2.81 ± 1.05	14 (10.9%)	36 (28.1%)	44 (34.4%)	28 (21.9%)	6 (4.7%)
Writing a report	3.14 ± 1.02	6 (4.7%)	30 (23.4%)	42 (32.8%)	40 (31.3%)	10 (7.8%)
Creating graphs/figures	2.97 ± 1.22	18 (14.1%)	29 (22.7%)	33 (25.8%)	35 (27.3%)	13 (10.2%)
Creating tables	3.19 ± 1.20	15 (11.7%)	19 (14.8%)	39 (30.5%)	37 (28.9%)	18 (14.1%)
Being able to take care of myself	3.95 ± 1.03	5 (3.9%)	6 (4.7%)	23 (18.0%)	51 (39.8%)	43 (33.6%)
Meeting deadlines	4.02 ± 1.00	3 (2.3%)	9 (7.0%)	17 (13.3%)	53 (41.4%)	46 (35.9%)

Skill	t	р	d
Writing an essay*	3.80	<.001	0.34
Writing a professional email*	6.89	<.001	0.61
Creating a poster*	4.32	<.001	0.38
Giving an oral presentation*	-3.87	<.001	-0.34
Speaking up in teaching sessions*	-5.17	<.001	-0.46
Talking to someone who I don't know	1.48	.141	0.13
Networking	-0.78	.437	-0.07
Organisational skills*	5.51	<.001	0.49
Problem-solving skills*	8.62	<.001	0.76
Giving interviews	-2.16	.033	-0.19
Being resilient*	6.48	<.001	0.57
Understanding feedback*	12.56	<.001	1.11
Providing feedback to someone else	3.00	.003	0.27
Critical thinking*	7.81	<.001	0.69
Asking for help	1.54	.126	0.14
Working in a group*	5.40	<.001	0.48
Writing a CV	2.56	.012	0.23
Managing my time	2.63	.010	0.23
Planning my time*	4.56	<.001	0.40
Having a good study-life balance	1.56	.122	0.14
Trying something new*	6.22	<.001	0.55
Responsiveness to change*	4.17	<.001	0.37
Data analysis	-2.02	.045	-0.18
Writing a report	1.56	.120	0.14
Creating graphs/figures	-0.29	.772	-0.03
Creating tables	1.77	.080	0.16
Being able to take care of myself*	10.39	<.001	0.92
Meeting deadlines*	11.54	<.001	1.02

Table 3. Results of two-sided one-sample t-tests comparing with the mid-point of the scale for each of the 28 skills for students in year 1, * indicating significance.

feedback', 'critical thinking', 'working in a group', 'planning my time', 'trying something new', 'responsiveness to change', 'being able to take care of myself', 'meeting deadlines'. Two were significantly lower than the midpoint: 'giving an oral presentation' and 'speaking up in teaching sessions'. The following skills were not significantly different from the mid-point: 'talking to someone who I don't know', 'networking', 'giving interviews', 'providing feedback to someone else', 'asking for help', 'writing a CV', 'managing my time', 'having a good study-life balance', 'data analysis', 'writing a report', 'creating graphs/figures', 'creating tables'.

Descriptive statistics for confidence in skills for students in year 2 can be seen in Table 4. Two-sided t-tests were conducted to determine whether confidence in each skill differed significantly from the scale mid-point ('somewhat confident' = 3) (Hypothesis 1b) (Table 5). Bonferroni correction for multiple comparisons was applied, with the corrected p value of .0017 used. A number of skills were rated significantly higher than the midpoint rating: 'writing an essay', 'writing a professional email', 'organisational skills', 'problem-solving skills', 'being resilient', 'understanding feedback', 'providing feedback to someone else', 'critical thinking', 'asking for help', 'working in a group', 'writing a CV', 'managing my time', 'planning my time', 'trying something new', 'responsiveness to change', 'writing a report', 'creating tables', 'being able to take care of myself', 'meeting deadlines'. Two were significantly lower than the midpoint: 'giving an oral presentation' and 'speaking up in teaching sessions'. The following skills were not significantly different from the mid-point: 'creating a poster', 'talking to someone who I don't know', 'networking', 'giving interviews', 'having a good study-life balance', 'data analysis', 'creating graphs/ figures'.

Between-subjects comparison of year 1 and year 2

One-sided independent-samples t-tests were conducted to test hypothesis 2a, that confidence in each skill was higher in when students were in year 2 compared to when they were in year 1. Bonferroni correction for multiple comparisons was applied, giving us an alpha value of 0.0017. Of the 28 comparisons (see Table 6), only the skill 'Giving interviews' was significantly higher in year 2 compared to year 1.

6 😔 P. C. J. OTERMANS ET AL.

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		Not confident	Slightly	Somewhat	Fairly	Completely
Skill	$Mean \pm SD$	at all	confident	confident	confident	confident
Writing an essay	3.37 ± 0.94	4 (2.7%)	24 (16.2%)	44 (29.7%)	65 (43.9%)	11 (7.4%)
Writing a professional email	3.86 ± 1.02	3 (2.0%)	17 (11.5%)	19 (12.8%)	68 (45.9%)	41 (27.7%)
Creating a poster	3.14 ± 1.13	12 (8.1%)	31 (20.9%)	47 (31.8%)	40 (27.0%)	18 (12.2%)
Giving an oral presentation	2.70 ± 1.15	28 (18.9%)	37 (25.0%)	41 (27.7%)	36 (24.3%)	6 (4.1%)
Speaking up in teaching sessions	2.39 ± 1.19	44 (29.7%)	39 (26.4%)	34 (23.0%)	25 (16.9%)	6 (4.1%)
Talking to someone who I don't know	3.20 ± 1.17	13 (8.8%)	29 (19.6%)	42 (28.4%)	43 (29.1%)	21 (14.2%)
Networking	2.89 ± 1.16	22 (14.9%)	31 (20.9%)	46 (31.1%)	39 (26.4%)	10 (6.8%)
Organisational skills	3.59 ± 1.02	4 (2.7%)	19 (12.8%)	37 (25.0%)	61 (41.2%)	27 (18.2%)
Problem-solving skills	3.64 ± 0.88	2 (1.4%)	14 (9.5%)	40 (27.0%)	72 (48.6%)	20 (13.5%)
Giving interviews	3.23 ± 1.06	11 (7.4%)	22 (14.9%)	52 (35.1%)	48 (32.4%)	15 (10.1%)
Being resilient	3.57 ± 0.92	1 (0.7%)	20 (13.5%)	41 (27.7%)	65 (43.9%)	21 (14.2%)
Understanding feedback	3.64 ± 0.98	1 (0.7%)	22 (14.9%)	34 (23.0%)	63 (42.6%)	28 (18.9%)
Providing feedback to someone else	3.29 ± 1.03	6 (4.1%)	24 (16.2%)	59 (39.9%)	39 (26.4%)	20 (13.5%)
Critical thinking	3.52 ± 0.90	3 (2.0%)	15 (10.1%)	49 (33.1%)	64 (43.2%)	17 (11.5%)
Asking for help	3.33 ± 1.10	7 (4.7%)	28 (18.9%)	46 (31.3%)	43 (29.1%)	24 (16.2%)
Working in a group	3.51 ± 1.06	7 (4.7%)	17 (11.5%)	43 (29.1%)	55 (37.2%)	26 (17.6%)
Writing a CV	3.46 ± 1.01	3 (2.0%)	24 (16.2%)	46 (31.3%)	52 (35.1%)	23 (15.5%)
Managing my time	3.34 ± 1.12	9 (6.1%)	27 (18.2%)	38 (25.7%)	52 (35.1%)	22 (14.9%)
Planning my time	3.45 ± 1.14	6 (4.1%)	30 (20.3%)	32 (21.6%)	51 (34.5%)	29 (19.6%)
Having a good study-life balance	3.01 ± 1.11	15 (10.1%)	33 (22.3%)	47 (31.8%)	41 (27.7%)	12 (8.1%)
Trying something new	3.41 ± 1.08	6 (4.1%)	26 (17.6%)	40 (27.0%)	53 (35.8%)	23 (15.5%)
Responsiveness to change	3.37 ± 1.04	6 (4.1%)	22 (14.9%)	53 (35.8%)	45 (30.4%)	22 (14.9%)
Data analysis	3.04 ± 1.10	13 (8.8%)	34 (23.0%)	48 (32.4%)	40 (27.0%)	13 (8.8%)
Writing a report	3.30 ± 1.06	8 (5.4%)	27 (18.2%)	42 (28.4%)	55 (37.2%)	16 (10.8%)
Creating graphs/figures	3.21 ± 1.14	15 (10.1%)	19 (12.8%)	53 (35.8%)	42 (28.4%)	19 (12.8%)
Creating tables	3.38 ± 1.28	9 (6.1%)	25 (16.9%)	39 (26.4%)	51 (34.5%)	24 (16.2%)
Being able to take care of myself	3.81 ± 1.85	6 (4.1%)	19 (12.8%)	21 (14.2%)	53 (35.8%)	49 (33.1%)
Meeting deadlines	3.99 ± 1.03	1 (0.7%)	16 (10.8%)	25 (16.9%)	48 (32,4%)	58 (39.2%)

Table 4. Mean, standard deviation and frequency analysis for each of the 28 skills for students in year 2.

Table 5. Results of two-sided one-sample t-tests comparing with the mid-point of the scale for each of the 28 skills for students in year 1, * indicating significance.

		5 5	
Skill	t	p	d
Writing an essay*	4.83	<.001	0.40
Writing a professional email*	10.27	<.001	.84
Creating a poster	1.53	.129	0.13
Giving an oral presentation*	-3.21	.002	-0.26
Speaking up in teaching sessions*	-6.20	<.001	-0.51
Talking to someone who I don't know	2.10	.037	0.17
Networking	-1.14	.257	-0.09
Organisational skills*	7.12	<.001	0.59
Problem-solving skills*	8.76	<.001	0.72
Giving interviews	2.63	.009	0.22
Being resilient*	7.60	<.001	0.63
Understanding feedback*	8.00	<.001	0.66
Providing feedback to someone else*	3.45	<.001	0.28
Critical thinking*	7.04	<.001	0.58
Asking for help*	3.65	<.001	0.30
Working in a group*	5.90	<.001	0.49
Writing a CV*	5.56	<.001	0.46
Managing my time*	3.73	<.001	0.31
Planning my time*	4.84	<.001	0.40
Having a good study-life balance	0.15	.883	0.01
Trying something new*	4.67	<.001	0.38
Responsiveness to change*	4.35	<.001	0.36
Data analysis	0.45	.654	0.04
Writing a report*	3.42	<.001	0.28
Creating graphs/figures	2.24	.027	0.18
Creating tables*	4.08	<.001	0.34
Being able to take care of myself*	8.57	<.001	0.71
Meeting deadlines*	11.65	<.001	0.96

Skill	t	p	Cohen's d
Writing an essay	0.76	.224	0.092
Writing a professional email	2.04	.021	0.246
Creating a poster	-2.03	.022	-0.245
Giving an oral presentation	0.82	.207	0.099
Speaking up in teaching sessions	-0.43	.336	-0.051
Talking to someone who I don't know	0.33	.372	0.039
Networking	-0.22	.414	-0.026
Organisational skills	0.77	.222	0.093
Problem-solving skills	-0.27	.392	-0.033
Giving interviews*	3.37	<.001	0.407
Being resilient	0.46	.323	0.056
Understanding feedback	-2.48	.007	-0.300
Providing feedback to someone else	0.27	.393	0.033
Critical thinking	-0.96	.168	-0.116
Asking for help	1.29	.099	0.156
Working in a group	0.04	.482	0.005
Writing a CV	1.56	.060	0.189
Managing my time	0.51	.304	0.062
Planning my time	-0.12	.454	-0.014
Having a good study-life balance	-1.02	.155	-0.123
Trying something new	-1.55	.061	-0.187
Responsiveness to change	-0.15	.440	-0.018
Data analysis	1.76	.040	0.212
Writing a report	1.25	.107	0.151
Creating graphs/figures	1.70	.045	0.205
Creating tables	1.36	.087	0.164
Being able to take care of myself	-1.02	.155	-0.123
Meeting deadlines	-0.24	.406	-0.029

Table 6. Results of one-sided independent-samples t-tests for each of the 28 skills, * indicating significance.

Within-subjects comparison

For this section, only data of those students who had completed the survey both in year 1 and year 2 was used (N = 82). Some students only took part when they were in year 1 or when they were in year 2. One-sided within-subjects t-tests were conducted to test hypothesis 2b that for each student, their level of confidence in their skills was significantly higher in year 2 compared to year 1 (Table 7). Bonferroni correction for multiple comparisons was applied, with a corrected *p* value of .0017 used. Four skills showed a significant increase in mean confidence from year 1 to year 2: 'Writing a professional email' 'Giving interviews', 'Creating graphs/figures' and 'Creating tables'.

The survey also included a few open questions. Below are the findings using thematic analysis of the open questions split per level starting with year 1.

Students in year 1

To the question 'Why did you choose psychology at Brunel?', answers mainly included their interest in the subject and Brunel's reputation and ranking (Brunel is ranked in the top 350 in the world in the latest QS ranking 2024 list) with psychology being popular. Students also considered whether there was placement offered or not at Brunel (Brunel does offer both thin and thick sandwich options and is well known for it). Some of the respondents also chose this university due to the specific optional modules provided and the location of the university. Many students heard good things about Brunel specifically having good graduate outcomes following the programme. Finally, quite a couple of students chose Brunel as they were referred by their friends or families. To the question 'What do you expect in your degree?', many responses included how they wanted to learn more about the mind and the body and their connection and to gain practical knowledge as well as theoretical understanding and learning vital life skills for their career prospects in the future. They expressed their desire to gain a deeper understanding of psychology. In essence, getting necessary knowledge required in the field. Many responses expressed a wish to graduate with either a first class or a 2:1 grade. To the question 'What do you hope to do after your degree?', most of the responses focused on working or making an impact on the field of psychology. They noted that they wanted to pursue a career as a psychologist or counsellor or pursue

further studies and get a master's degree or a PhD. Alternatively, many students responded that they were not exactly sure what they wish to do.

Students in year 2

To the Question 'why did you choose psychology at Brunel?', answers included that it was recommended and seemed appealing. Some responses stated that students aspired to become a psychologist and wanted to study psychology. Brunel seemed to be the recommended option as their research indicated when they were deciding the subject and university. Some responses noted that their family members also studied at Brunel and had a good experience. Some of the responses also stated the reason they chose Brunel was due to its reputation along with the placement options. Some mention about the location of the university, the modules that were provided in the course and their accreditation with the British Psychological Society (BPS). Many explained their desire to learn psychology but did not specify why Brunel specifically.

To the Question 'what do you expect in your degree?', responses included their desire to get a deeper understanding of psychology and use that knowledge to apply in other fields such as sports, academic work and learning about mental illnesses and their treatment. Students also stated that they wanted to gain information and skills required for a professional psychologist. Many expressed a wish to gain various skills in the field. Some wished to graduate with a good grade. Many explained their interest in learning about a specific field in psychology. To the Question 'what do you hope to do after your degree?', the responses noted the wish to enter jobs in sports organisations, to pursue a career in clinical psychology, psychiatry or neuroscience or to work in therapy or counselling. Some were uncertain about specific career plans. Some wanted to pursue further studies like master's.

Comparison of when students were in year 1 and year 2

For the question 'Why did you choose psychology at Brunel?' the responses from both year 1 and year 2 students talk about having chosen psychology at Brunel due to its reputation and its popularity. A couple of students from both years mention about the draw of Brunel's placement options and what is offered in terms of modules. The most common responses from students in both years were Brunel's ranking and its location. Second to that, many responses from both years were that they were referred to Brunel psychology by either their family members or their friends. For the question "what do you expect in your degree?", the responses from both years included their wish to gain a deeper understanding of psychology including theoretical knowledge and to pass with a good grade. Particularly common in both years was mention of going into a specific field in psychology such as sport psychology and clinical psychology and how they can apply the gained knowledge into these fields. For the question "what do you hope to do after your degree?", the responses from both years showed a dichotomy, with many students having a clear desired clear trajectory but also many who were unsure what they wanted to do after their degree. Of those with a clear outcome in mind, these were most commonly to enter the field of clinical psychology, therapy or counselling or to go into further studies (Master's or PhD degree). The responses remained somewhat similar in both years.

Discussion

Students having confidence in their skills and own abilities is beneficial to their learning in HE. Therefore, the current study aimed to find valuable insights into students' confidence in key skills over their first two academic years at university. Please note the study did not focus on the development of these skills.

In relation to hypothesis 1a whether students' confidence in their skills is significantly different from the mid-point measure in year 1, results showed that for many skills confidence levels were higher than the midpoint except for 'giving an oral presentation', and 'speaking up in teaching sessions'. This can be easily understood as many students are nervous about speaking up in front of a large group of their peers (ie the authors teach a large cohort of around 200 students per year) and for many students

ckill	M + SD Voor 1	M + CD Voor 2	+	n	Cohon's d
			1	P	Conens u
Writing an essay	3.32 ± 0.82	3.37 ± 0.91	1.28	.103	0.14
Writing a professional email*	3.60 ± 0.97	3.93 ± 0.99	3.30	<.001	0.36
Creating a poster	3.38 ± 1.05	3.09 ± 1.02	-2.24	.014	-0.25
Giving an oral presentation	2.45 ± 1.22	2.68 ± 1.15	2.39	.010	0.26
Speaking up in teaching sessions	2.30 ± 1.15	2.35 ± 1.17	0.45	.329	0.05
Talking to someone who I don't know	3.12 ± 1.20	3.13 ± 1.11	0.11	.456	0.01
Networking	2.95 ± 1.10	2.85 ± 1012	-0.85	.199	-0.09
Organisational skills	3.50 ± 1.01	3.56 ± 1.01	0.51	.305	0.06
Problem-solving skills	3.73 ± 0.85	3.68 ± 0.86	-0.50	.310	-0.06
Giving interviews*	2.71 ± 1.14	3.18 ± 1.04	3.50	<.001	0.39
Being resilient	3.55 ± 0.93	3.50 ± 0.91	-0.39	.347	-0.04
Understanding feedback	3.91 ± 0.82	3.73 ± 1.06	-1.71	.046	-0.19
Providing feedback to someone else	3.28 ± 0.96	3.30 ± 1.02	0.21	.419	0.02
Critical thinking	3.66 ± 0.91	3.55 ± 0.89	-0.89	.189	-0.10
Asking for help	3.05 ± 1.16	3.39 ± 1.09	2.52	.007	0.28
Working in a group	3.49 ± 1.09	3.54 ± 1.00	0.42	.340	0.05
Writing a CV	3.17 ± 1.03	3.39 ± 0.95	1.66	.050	0.18
Managing my time	3.30 ± 1.18	3.40 ± 1.05	0.78	.220	0.09
Planning my time	3.50 ± 1.15	3.55 ± 1.06	0.37	.356	0.04
Having a good study-life balance	3.07 ± 1.09	3.02 ± 1.13	-0.35	.365	-0.04
Trying something new	3.62 ± 1.12	3.51 ± 1.13	-0.91	.182	-0.10
Responsiveness to change	3.37 ± 1.04	3.50 ± 1.01	1.05	.150	0.12
Data analysis	2.79 ± 1.02	3.16 ± 0.99	2.97	.002	0.33
Writing a report	3.11 ± 0.97	3.32 ± 1.03	1.65	.052	0.18
Creating graphs/figures*	2.88 ± 1.20	3.35 ± 1.06	3.76	<.001	0.42
Creating tables*	3.09 ± 1.16	3.51 ± 1.09	3.26	<.001	0.36
Being able to take care of myself	3.93 ± 1.00	3.90 ± 1.15	-0.17	.435	-0.02
Meeting deadlines	4.11 ± 0.93	4.10 ± 0.98	-0.09	.464	-0.01

Table 7. Mean and standard deviation for each of the 28 skills for students in year 1 and 2 and results of paired-samples t-tests for each of the 28 skills, * indicating significance.

university is very different from school. For some skills, students' confidence levels were not significantly different from midpoint.

For hypothesis 1b, testing whether students' confidence in skills is significantly difference from the mid-point for year 2 students, fewer skills showed confidence levels that were not significantly different from midpoint. The same two skills showed confidence levels that were lower than the midpoint as in year 1 ('giving an oral presentation', and 'speaking up in teaching sessions'). Many of those that were not significantly different in year 1 were higher than midpoint in year 2. This suggests that students have increased their confidence in a number of skills in their second compared to first year of study.

The finding that students in both year 1 and year 2 had low confidence in giving oral presentations aligns with prior research showing that public speaking is a task many students find fear-inducing (Grieve et al., 2021). Grieve et al. (2021) found several causes of this fear: 'fear of being judged', 'physical symptoms', 'uncertainty about the topic', 'negative effect on university experience', 'practice and preparation', and 'more practical support needed'. Students in both years also had low confidence in 'speaking up in teaching sessions' which aligns with previous research (Severe et al., 2024). Severe et al. (2024) found four key factors that influence student's decisions to engage in verbal participation in the classroom: influence of the instructor (creating an inclusive environment), course material (being interesting and relevant, and not too complex), fear of negative evaluation (concerns about peer judgement or providing incorrect answers), and classroom dynamics (smaller classes create a sense of community).

Transitioning to university can also influence students' confidence levels in skills. Research by Schütze et al. (2021) showed that improving students' self-efficacy enhances their knowledge and confidence in relation to essential academic skills. This may influence confidence levels seen in this study, particularly with skills that students find difficult, such as speaking up in class or public speaking.

The findings support the hypothesis that students exhibit higher levels of confidence in skills in their second year compared to their first (hypothesis 2a). The analysis showed significant differences in confidence levels across numerous skills between the first and second year of study. Year 1 students showed lower confidence than year 2 students in skills such as giving oral presentations and speaking up in teaching sessions. This may indicate first year students generally feel less confident in public speaking and active participation in class discussions. In contrast, second year students' higher confidence may reflect increased familiarity with the academic environment and enhanced communication skills through

continued practice and exposure which is similar to previous findings (Webb & Cotton, 2019). It may also be partly due to increased familiarity with their peer group, as they progress through their programme together.

This study also identified key skill areas where significant improvements in confidence are observed. Confidence in writing professional emails, creating posters and managing time showed increases from year 1–2. This supports our two hypotheses (hypotheses 2a and 2b), indicating students develop higher confidence levels as they advance in their studies and gain more experience. Costa and Steffgen (2015) found that perceived skill acquisition increased from first to fifth semester indicating improvement as more years spent at university. Second-year students are typically exposed to more complex and challenging coursework, which not only broadens their knowledge but enhances their problem solving, time management and critical thinking skills. For example, studies have shown that students who engage in active learning tend to exhibit higher confidence (Prince, 2004). Previous research supports this hypothesis as a study by Tuckman (2003) found that students who received time management and training performed better academically.

Limitations and future research

This study has some limitations that should be acknowledged. The reliance on self-reported data through surveys introduces potential biases, such as social desirability bias. Participants might have overestimated or underestimated their skills and confidence levels, affecting the accuracy and the reliability of the results. Moreover, the study's longitudinal design also produces challenges, as such studies are prone to participant attrition (Bamer et al., 2020). This means the participants who remained in the study to complete the survey in their second year might differ from those who dropped out. Differences in motivation or engagement with the study might be evident, and these are factors likely to be strongly related to confidence in skills. The study nevertheless highlights the importance of continued support and targeted interventions to enhance student's skill development, therefore improving their confidence, academic success and employability.

One area that future research could investigate is precisely how educators can increase students' confidence in their developing transferable skills. Researchers might consider testing interventions to determine effective methods.

Conclusion

HE has radically changed over the last few decades and is still in the process of changing (Dunne et al., 2000). As HE is more accessible to people and more people have entered HE, universities are increasingly moving away from the traditional production and transmission of academic knowledge and are emphasising skills development for employability (Maclean & Pavlova, 2011). The role of HE in developing students' skills and attributes alongside their subject knowledge and academic skills is being promoted by government and industry, emphasising the need to improve graduate employability (Atlay & Harris, 2000). The development of skills amongst university students is an effective and a crucial process for their future academic and career paths. This study focused on students' confidence in skills. Confidence in several key skills such as 'writing a report' and 'creating tables' was higher in the second year of study, compared to the first. These are skills that are practised through the first two years of study, suggesting that confidence in skills increases as students gain more experience. Provision of skills training within the curriculum is thus a vital part of a student's educational journey to improve their confidence, their academic achievements, and their graduate attributes.

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No potential conflict of interest was reported by the author(s).

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