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Paper

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Title: Development of the UCC Graduate Attributes and Values Compass (GAP Compass)

Abstract (maximum of 150 words): The purpose of the Graduate Attributes Programme is to deliver a suite of *Transition* modules to enable a successful student journey and to prepare students for their future. *Transition Through* initiatives provide targeted supports, deliver skills training and develop graduate attributes and values that go beyond disciplinary content knowledge and can be applied in life-wide contexts. The GAP Compass self-assessment and suite of learning experiences is the flagship initiative and supports a successful student transition through UCC. The values identified for inclusion in the GAP include: Respect; Ambition; Compassion; Resilience; Integrity. The attributes selected were: Creators, Evaluators, and Communicators of Knowledge; Independent and Creative Thinkers; Digitally Fluent; Socially Responsible; and Effective Global Citizens who Recognise and Challenge Inequality. Our goal is to foster the development of these crucial characteristics during our students' time with us. This goal requires a valid and reliable means of assessing each value and attribute.

Key words (up to five): Graduate Attributes; Values; self-assessment; quality learning

Text of paper (maximum of 3000 words, excluding references):

Development of the UCC Graduate Attributes and Values Compass (GAP Compass)

Background:

The purpose of the Graduate Attributes Programme is to deliver a suite of *Transition* modules to enable a successful student journey and to prepare students for their future.

1. *Transition In* initiatives guide students into the right programme of study for them, whilst simultaneously widening access of underrepresented cohorts and improving first year retention rates.
2. *Transition Through* initiatives provide targeted supports, deliver skills training and develop graduate attributes that go beyond disciplinary content knowledge and can be applied in life-wide contexts. The

GAP Compass (Figure 1) self-assessment is the flagship initiative of the Graduate Attributes Programme and supports a successful student transition through UCC.

3. *Transition Out* initiatives prepare final year students to transition into professional environments, delivering on the ambitions of UCC's Institutional Employability and Employment Guide.

This programme aims to prepare students for this journey and beyond. Modules and initiatives have been developed to equip our graduates of the future with the skills, attributes, and values needed to respond to the needs of enterprise, public service, and community sectors. This initiative advances the development of academic, specialist and technical competencies, equipping students with transferrable skills. With a focus on developing core values and graduate attributes, these modules integrate with the academic curriculum, taking a holistic educational approach to develop character, professionalism, and capacity for critical and creative thought.

Introduction

The University College Cork (UCC) Academic Strategic Plan 2018-2022 (UCC, 2018) included a commitment to assess students annually on five values and five attributes. The values and attributes (V/A) are the focus of the recently-launched Graduate Attributes Programme (GAP) of UCC, whose purpose is to foster their development among our students.

A mission of UCC is that its graduates will be well-rounded, curious, self-aware individuals who continually learn new skills, are open to new ideas, and make things happen. The GAP was created to allow each college, school and discipline to adopt attributes and values and embed them explicitly into the curriculum, and for each Student Experience Unit to encompass and embed them within extra-curricular and co-curricular activities.

The values identified for inclusion in the GAP include: Respect; Ambition; Compassion; Resilience; Integrity. The attributes selected were: Creators, Evaluators, and Communicators of Knowledge (CECK); Independent and Creative Thinkers (ICT); Digitally Fluent (DF); Socially Responsible (SR); and Effective Global Citizens who Recognise and Challenge Inequality (EGC).

The annual survey of each UCC student is linked to a suite of services which can be of assistance in developing these characteristics; for example, students whose profile identifies a perceived lack of capacity to evaluate research might be directed to the Skills Centre, while those who report relatively low resilience might be referred to Student Counselling or to UCC's Mentoring Programme.

The ultimate goal is to foster the development of these crucial characteristics during our students' time with us. This goal requires a valid and reliable means of assessing each value and attribute.

This paper reports on the development of these specific measures.

The work involved two phases – the first to generate candidate items, and the second to refine and validate scales. The aim was to develop scales of 10 items or fewer for each characteristic. Each phase is reported in turn.



Figure 1. To increase student engagement with Your GAP Compass, an impactful brand design and message were developed

Phase 1 – Development of Candidate Items

The purpose of this phase of the work was to generate lists of items which might be appropriate for measuring each of the V/A in a University context. To this end, academic staff, administrative & services staff, and officers of the Students' Union were invited to share their thoughts on what these characteristics might look like in students.

Method

Participants An online survey was distributed to all staff and SU officers. Responses were obtained from 53 respondents (40 female, 13 male). Ages ranged from 30 to 73 years, with a mean of 49.43 (sd = 9.39). Twenty-four respondents were faculty members, 26 professional services or administrative staff, and two research staff.

Design An anonymous, cross-sectional online survey was employed to gather information on understandings of the V/A. The order of presentation of V/A was randomised for each participant, so as to minimise risk of any of the characteristics having very few responses.

Instruments In addition to demographic items, participants were invited to list five abilities and/or characteristics which they felt would relate to each of the ten V/As in the context of the student groups they teach or interact with regularly. These questions were designed by MM and ED.

Analysis The data were subjected to an analysis which was based on the first steps of Thematic Analysis (T.A. – Braun and Clarke, 2006). Each of the V/A was taken in turn. The data were read through several times, initial coding took place, and themes were identified through linking related codes. Once this had been done, potential items for the questionnaires were generated based on those codes.

Data analysis was conducted by MM and reviewed by SK..

Ethics Approval was obtained from the School of Applied Psychology Ethics Committee.

Results

On the basis of the codes and themes generated by the T.A., lists of candidate items were developed by MM and ED. In an effort to be comprehensive, a surplus of items was generated for each characteristic, with numbers of items dependent on numbers of themes and codes yielded by

analysis. Numbers of candidate items ranged from 14 (DF) to 28 (Resilience). Full lists of candidate items are presented in Appendix 1.

Phase 2 – Refinement and Validation of GAP Compass Scales

In Phase 2, these lists of items yielded from Phase 1 were to be refined to lengths of 10 items or fewer per characteristic, and these final lists were to be assessed for reliability and validity. Where it was possible to identify pre-existing, validated psychometric scales which measured similar constructs to the V/A, these were included to allow for validation through correlation.

Method

Design An online, anonymous, survey-style design was employed.

Participants The student body of UCC included 22,337 people. The items for each of the characteristics were distributed to 2,000 randomly selected, non-overlapping students. Complete responses ranged from 150 (7.5% - CECK) to 336 (16.8% - Compassion). In total, 2,381 (11.9%) completed responses were obtained.

Instruments In addition to demographic items, and to the candidate items for each of V/A, the following measures were employed for validation purposes.

The Kaufman Domains of Creativity Scale (K-DOCS; Kaufman, 2012) – Scholarly Subscale was included with the GAP scales for CECK and ICT. This measure assesses creative behaviour in scholarly endeavour. Cronbach's alpha was reported as .86, and validity was demonstrated through correlation with the personality dimension of Openness to Experience. Cronbach's alpha in this study were .85 and .74 for the two GAP scales respectively.

The Academic Behavioural Confidence Scale (ABC; Sander and Sanders, 2009) – Verbalising subscale was employed as a validation measure for the CECK GAP scale. This scale measures students' confidence that they can participate verbally in useful academic engagement, and was identified through factor analysis of the validated Academic Confidence Scale. Cronbach's alpha in the current study was .83.

The Big Five Inventory (BFI; John and Srivastava, 1999) – Openness subscale is a measure of openness, originality and open-mindedness, and was employed as a validation scale for the GAP dimension ICT. Its validity was demonstrated through a correlation of .85 with the Openness subscale of the NEO Personality Inventory, and its internal consistency was reported as .81. In the current study, its Cronbach alphas was .67.

The Social Justice Scale (SJS; Torres-Harding, Siers and Olson, 2012) – Attitudes subscale and Behavioral Intentions Subscale were selected as validation measures for the GAP scales EGC. These SJS subscales measure level of agreement with relevant values and behaviours, and intent to act accordingly. These subscales were validated through medium correlations with related scales. Their internal consistencies were reported as .89 and .86. In the current study, the Attitudes subscale yielded Cronbach's alphas of .9 and .92; the Behavioral Intentions subscale had alphas of .69 and .66.

The Teaching Proficiency Self-Assessment for 21st Century Learning (TPSA C21: Christensen and Knezek, 2017) – non-teaching (NT) section was adapted for validation of the GAP scale DF. This measures' subscales assess confidence in using new electronic technologies, and were validated through correlation with technology integration measures. Cronbach's alphas for its components ranged from .75 to .84. In the current study Cronbach's alpha was .89.

The Compassion Scale (CS; Pommier, Neff and Tóth-Király, 2019) was used as a validation measure for the Compassion Scale of the GAP compass. This scale was validated in students through large correlation with such related measures as empathic concern and affective wisdom. Cronbach's alpha in students was reported to be .87-.88. In the current study Cronbach's alpha was .75.

The Santa Clara Ethics Scale (SCES; Plante and McCready, 2019) was employed as a validation measure for the GAP Integrity scale. Its validity was demonstrated through large correlation with a measure of compassion and its internal consistency was reported as .83. In this study, Cronbach's alpha was .77.

The Brief Resilient Coping Scale (BRCS; Sinclair and Wallston, 2004) was deployed as a validation scale for the GAP Resilience scale. This four-item scale was validated through medium-to-large correlations with positive affect and reappraisal, and was reported as having a Cronbach's alpha of .69. In the present study, its alpha was .6, and its mean inter-item correlation .29.

Analysis The first step for each GAP scale was to refine the scale to yield a unidimensional measure with 10 items or fewer. The steps applied here included examination of response frequencies, inter-item correlation, Principal Components Analysis, and consideration of coherence and applicability of items. Items were excluded due to:

1. >60% of respondents endorsing the same response;
2. Multicollinearity with other items;
3. Not loading well on the primary component;
4. Not being considered applicable to all students;
5. Not being considered sufficiently specific;
6. Not being considered to focus on behaviours (where appropriate).

Following this, descriptive statistics were calculated, correlations with related measures were conducted, and Cronbach's alpha value were computed.

Ethics Ethical approval was obtained from the UCC School of Applied Psychology Ethics Committee.

Results

All GAP scales with all candidate items were subjected to PCA. Following the process of refinement outlined above, all were reduced to ten items in length, with items which loaded at >.3 on the primary component (see Appendix 2 for finalised scales).

Some details of the PCAs conducted on the final scales, along with Cronbach's alpha values, are presented in Table 1.

Table 1

Selected PCA data, and Cronbach's alpha

GAP Scale	% Variance Explained	Range of Factor Loadings	Cronbach's Alpha
CECK10	53.75%	.65 - .80	.90
ICT10	35.72%	.46 - .69	.79
EGC10	38.12%	.49 - .74	.80
SR10	37.48%	.38 - .75	.80
DF10	46.56%	.54 - .76	.86
Compassion	38.60%	.52 - .72	.81
Integrity	36.39%	.50 - .67	.80
Resilience	42.47%	.61 - .77	.85
Respect	31.86%	.44 - .64	.74
Ambition	48.87%	.51 - .82	.88

Following this, descriptive statistics were generated for all GAP scales, these are presented in Table 2.

Table 2*Descriptive Statistics for GAP Scales*

		Ambition	CECK10	DF10	EGC10	ICT10	Integrity	Resilience	Respect	SR10	Compassion
N		279	150	275	149	167	237	318	285	336	200
Mean		56.80	51.68	52.85	57.91	51.02	56.91	47.64	61.59	53.19	59.54
Median		58.00	53.00	54.00	59.00	52.00	57.00	48.00	62.00	54.00	60.00
Std. Deviation		9.07	10.13	9.80	7.47	7.93	7.03	9.32	5.88	8.32	7.12
Minimum		18.00	11.00	22.00	28.00	30.00	36.00	20.00	39.00	26.00	27.00
Maximum		70.00	70.00	70.00	70.00	69.00	70.00	70.00	70.00	70.00	70.00
Percentiles	25	51.00	45.00	47.00	53.00	46.00	41.00	58.00	47.00	56.00	53.00
	75	64.00	59.00	61.00	64.00	57.00	54.00	66.00	60.00	65.00	62.00

Results of validation analyses are presented in Table 3

Table 3

Correlations of Validation Scales with GAP Scales

GAP Scale	Validation Scale	Pearson's r
CECK10	KDOCS-Scholarly	.69*
	ABC-Verbalising	.60*
ICT10	KDOCS-Scholarly	.63*
	BFI-Openness	.60*
EGC10	SJS-Attitudes	.59*
	SJS-Behavioral	.37*
SR10	SJS-Attitudes	.59*
	SJS-Behavioral	.42*
DF10	TPSA C21 - NT	.69*
Compassion	CS	.64*
Integrity	SECS	.61*
Resilience	BRCS	.57*

* $p < .001$

Discussion

The purpose of this research was to develop short, valid and reliable scales to measure – specifically in a University student context – those ten V/A identified in the UCC Strategic Plan 2018-2022 (2018). The initial phase of the study was qualitative and inductive in nature, gathering views of faculty, administrative staff and professional services staff of how these characteristics might appear in those students with whom they regularly engaged. Analysis of the data provided by our respondents yielded list of candidate items for each dimension, with numbers of candidate items ranging between 14 and 28.

Following this phase, a quantitative approach was adopted for refinement and validation of the measures. Principal Components Analyses and removal of unsuitable items led to the development of 10-item scales for each of the dimensions targeted in GAP; each final scale was unidimensional, with adequate loadings of all items on their target scales. Each of the scales yielded a Cronbach's alpha (ranging between .74 and .9) indicating a high level of internal consistency, without raising concerns about items asking the same question (Streiner, 2003).

Finally, correlations with those psychometric scales which were selected for validation purposes yielded large correlations in all cases, indicating that the scales generated from this research are measuring constructs which are strongly related to these measures.

There are limitations to this research. The sample size for the qualitative component was small – likely due in part to the fact that this phase was conducted during the early stages of the global Covid-19 pandemic, and staff were dealing with social restrictions and learning to work remotely. This does raise questions about how comprehensive the codes identified are. While the sample sizes for the quantitative aspect were acceptable, it cannot be assumed that the respondents are representative of the student body as a whole. Furthermore, the sample sizes for each scale were not large enough to allow for both exploratory and confirmatory factor analyses. Nonetheless, the results presented suggest that the scales are appropriate to use in the GAP.

The concerns raised can, in part, be addressed through analysis of the data from the first, comprehensive rolling out of the GAP Compass. Thousands of completed responses are anticipated, allowing scope for further factor analysis. This first iteration of the programme will also allow for qualitative work on student experience of the Compass and of the signposting provided in response; it will also allow for the beginning of research to identify strengths and limitations of the programme, and for work on targeting interventions to maximise its positive impact for the growth and development of our student body.

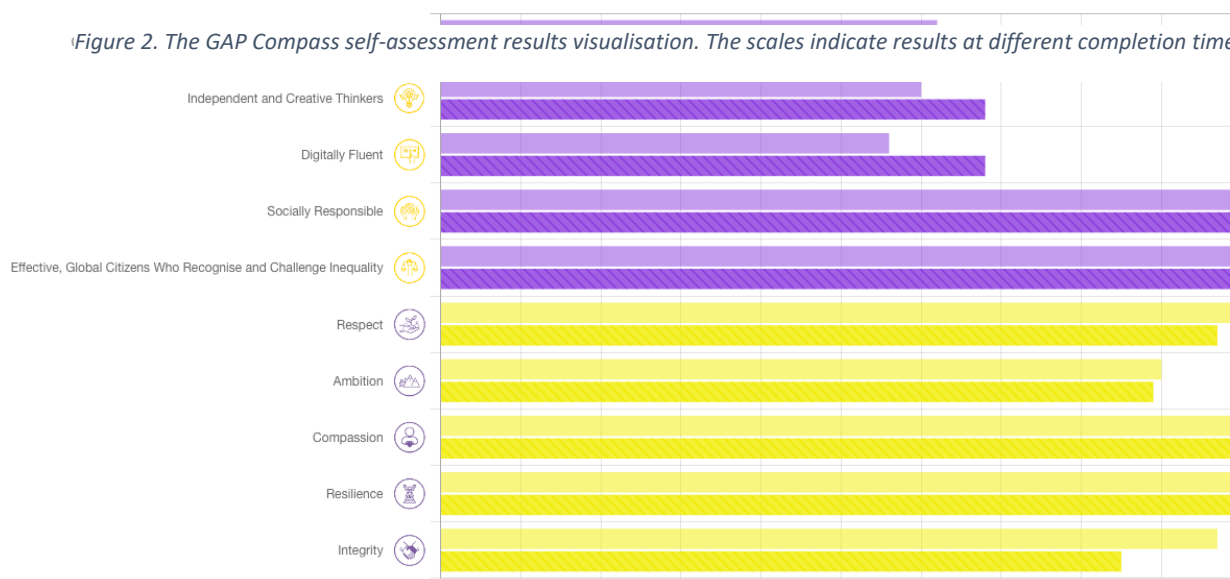
The [GAP Compass launched](#) in September 2022 and all current undergraduate and postgraduate students have been invited to take the self-assessment and engage in learning experiences that further support their development of each core attribute and value. The self-assessment is embedded in an online learning platform and is the first step in a flex five-stage process a student can engage with to gain an in-depth understanding of their personal and holistic development as they transition through their university journey.

Following reflection of assessment results, participants are signposted to a suite of learning experiences that support their development of each value and attribute. The learning experiences available on the platform have been curated by some 20 professional services and academic staff, with the aim that all students are facilitated through curricular, co-curricular and extra-curricular learning to develop their graduate attributes and values, in a manner reflective of their personal goals and programme of study. Approximately 26 hours of content comprising podcasts, quizzes, readings, and self-reflection exercises form the learning experiences and once a student engages with a minimum of 20 hours of content, they are eligible to receive a Digital Badge micro-credential, accredited by UCC.

Each year after academic registration, students will be invited to participate in the GAP Compass assessment and an additional scale will be added to their results which are presented along the continuum of acorn to mighty oak (Figure 2). The “Acorn to Mighty Oak” metaphor symbolises a student’s academic, personal, and professional development journey throughout their time at UCC. The next phase of the GAP will see the V/A embedded in UCC’s newly acquired Curriculum Management System. Comprehensive training will be developed for Academic Programme Directors and Coordinators to support them in recognising where the embedding of core V/A already exists within their programme. The training will also aim to support academic staff in creating opportunities to embed V/A during programme development and review stages. To achieve this a GAP Framework and a mapping toolkit will be developed. Programme maps will comprise an accessible document outlining a student’s journey of professional and personal development through each year of study. They will signpost to the GAP Compass, professional development initiatives, wellbeing platforms, clubs, societies and a broad range of local and community-based organisations and programmes that a student can engage with to support holistic development.

The Graduate Attributes Programme is very generously supported by the HEA Transformation and Innovation Fund 2018 the Tomar Trust, and we gratefully acknowledge this funding which is enabling the

Figure 2. The GAP Compass self-assessment results visualisation. The scales indicate results at different completion times.



development of much needed sustainable and scalable projects such as Your UCC Graduate Attributes and Values Compass.

Appendix 1: Candidate Items

Creators, evaluators and communicators of knowledge

To what extent are you.....

1. Confident you can communicate academic knowledge to peers and members of your discipline?
2. Confident you can communicate academic knowledge with people who are not familiar with your discipline?
3. Confident in using different media (e.g. oral presentations, written reports, social media) to communicate academic knowledge?
4. Confident of locating the information you need so as to successfully produce good quality academic work?
5. Confident in integrating information from different sources?
6. Confident of your ability to identify gaps and flaws in the writings of others?
7. Confident of your ability to identify gaps and flaws in your own work?
8. Able to critically interrogate sources of information?
9. Confident that your own work is of a high standard?
10. Able to effectively conduct research in your discipline?
11. Able to remain objective in appraising a topic or source, irrespective of personal opinion?
12. Knowledgeable in your discipline?
13. Confident in applying your knowledge of your discipline?
14. Rigorous and systematic in your approach to academic work?
15. Creative in your approach to problem-solving in your discipline?
16. Motivated to learn more in your discipline?
17. Confident you can work effectively alone?
18. Confident you can work effectively as part of a team?
19. Confident that your work is of a high ethical and moral standard?

Independent and Creative Thinkers

To what extent do you:

1. Find yourself questioning commonly held beliefs?
2. Find it difficult to bounce back from making mistakes?
3. Become disheartened by setbacks?
4. Feel comfortable in taking risks in pursuing ideas?
5. Feel comfortable challenging norms?
6. Read widely?
7. Find it easy to integrate ideas from diverse sources?
8. Take time to reflect on information you encounter in your studies?
9. Find academic assignments a way to increase your knowledge?
10. Pursue your own interests, irrespective of the views of others?
11. Readily change your ideas when faced with evidence you have been mistaken?

To what extent are you:

12. Confident in asserting your views on academic matters?
13. Open to respectful debate on ideas?
14. Open to being convinced that you are wrong?
15. Interested in learning about different disciplines?
16. Confident in combining information from different sources to reach new conclusions?
17. Creative in working with pre-existing information?
18. Able to recognise and deal with your own biases in processing information?
Able to recognise and deal with the biases of sources of information?
19. A self-directing learner?

Effective global citizens who recognise and challenge inequality

1. I keep up to date with current affairs
2. My generation will influence the lives of generations to come
3. A society's wellbeing can't be judged just by its wealth
4. Diversity in a society is a strength, not a weakness
5. I work, individually and/or in groups, to fight social injustice
6. I support groups that fight against social injustice
7. I speak out against inequality
8. I recognise how my behaviours might contribute to social injustice, and try to change them
9. I see how subjects I study can contribute to a fairer world
10. The common good is more important than individual wealth
11. There is a great deal of inequality globally
12. Citizens of wealthier countries have an obligation to challenge global inequality
13. Those who are socially advantaged should strive to combat social injustice
14. Climate change will harm the least well off the most
15. Traditions and social structures should be changed if they stand in the way of people's rights
16. Social injustice causes real damage to people's lives
17. I challenge prejudice when I witness it
18. I try to understand the forces behind social injustice
19. I try to challenge social injustice in my everyday life

Socially Responsible

1. I think it important to work to improve our society.
2. I feel people should take care of one another.
3. I am involved in individual or group actions to bring about positive change.
4. I support groups who work to bring about positive change.
5. I try to spread awareness of important social issues.
6. I consider the social implications of my actions.
7. I consider the environmental implications of my actions.
8. I often see the potential social relevance of topics I study.
9. I try to understand the viewpoints of others.
10. I engage with people outside of my immediate social circle.
11. My generation must be aware of how our actions will impact future generations.
12. My generation has a responsibility to future generations.
13. I am prepared to help others where I can.
14. I am prepared to ask for help if I am in need.
15. It is necessary to balance personal wishes with social needs.
16. Personal freedoms should be exercised with consideration of their impact on others.
17. I strive to be aware of important social and environmental matters.
18. We should be mindful of the welfare of others.
19. I am prepared to initiate change that is needed

Digitally Fluent

1. Comfortable in general with using Information and Communication Technology (ICT)?
2. Comfortable with the use of email?
3. Confident in using widely used software (such as MS Word, Excel, Powerpoint)?
4. Confident in the use of (or confident you can learn to use) O365 and Google Suite (provided by UCC)?
5. Confident in using (or confident you can learn to use) research software (e.g. NVivo, SPSS, R)?
6. Confident in using (or confident you can learn to use) Canvas (UCC's Virtual Learning Environment)?
7. Confident in using online platforms and/or applications?
8. Comfortable using (or confident you can become comfortable using) the Library's online resources?
9. Aware of how to assess the security of online platforms?
10. Positive about trying new ICT resources?
11. Mindful of privacy when using a new online resource?
12. Confident in your ability to critically evaluate online sources of information?
13. Confident you can create blogs or podcasts as part of your academic work?
14. Confident in using online platforms for reasons other than academic work

Compassion

1. I can understand the emotions others are experiencing
2. It is important to take care of one another
3. I am a good listener
4. I try to help others when they are in need
5. Anyone can find themselves in need of help
6. Luck plays a big part in whether one does well in life
7. I encourage those close to me to make the changes they want in their lives
8. I can pick up when people are unhappy, even if they do not tell me
9. It is important to help people who are trying to improve their lives
10. I work (alone or as part of a group) to improve the lots of others
11. I support groups who are trying to help people
12. Nobody should be excluded from the support of others
13. No matter their behaviour or beliefs, people deserve kindness and respect
14. I am good at being kind to myself
15. Humans need social interaction to live happy lives
16. I can find it in myself to forgive others
17. We need to tip the scales in favour of those who are less fortunate in life
18. It is upsetting that there is such unhappiness in the world
19. I am sensitive to the needs of others
20. I never turn away people who speak to me about their problems
21. We should strive to love others unconditionally
22. It is wrong that members of minority groups are sometimes excluded in our society

Integrity

1. I always behave in ways that are true to my principles
2. I have a strong sense of right and wrong
3. I am always truthful
4. I accept my share of responsibility when things go wrong
5. I accept the consequences of my actions
6. I do my best to meet my commitments
7. When others contribute to my work, I always acknowledge it
8. I am comfortable presenting others people's work as my own
9. I would plagiarise if I felt I could do so without being caught
10. I question authority figures if I feel they are acting unethically
11. I speak up when I see people act unethically, even if it might create problems for me to do so
12. I would feel comfortable being a whistle blower if I knew people were behaving unethically
13. I feel a responsibility to right the wrongs I see
14. I have a responsibility to wider society as well as to myself
15. I have a responsibility to my discipline as well as to myself
16. I am stubborn in standing against behaviour I see as wrong
17. I take time to consider whether my actions are consistent with my principles
18. I am reliable
19. There are no circumstances in which plagiarism is acceptable
20. I consider the opportunity to attend University as a privilege
21. I consider knowledge to be a privilege

Resilience

1. Criticism of my work is an opportunity for me to learn
2. I find it easy to keep problems in perspective
3. Problems can seem far bigger to me than they really are
4. When I suffer a setback, I bounce back quickly
5. When I am experiencing tough times, I keep on going
6. I seek help when I need it
7. When I have a difficult task to do, I don't put it off
8. I strive to stay positive, even when I am experiencing difficulties
9. Even if I don't succeed in a task, I recognise the value of the effort I have made
10. Setbacks and failures are valuable opportunities for growth
11. Negative emotions are parts of life which come and go
12. I approach challenges with confidence
13. I get over disappointments easily
14. Successes and failures do not affect my worth
15. I maintain a healthy lifestyle
16. I maintain a healthy work-life balance
17. My self-worth is independent of my work performance
18. I am good at taking care of myself in difficult times
19. I can remain true to my values in good times and in bad
20. I easily adapt to new circumstances
21. I draw on multiple resources to help me cope with problems
22. Even the most difficult of times has some positive aspects
23. When I have problems, I focus on finding solutions
24. I adapted to college life with ease / I am confident I will adapt to college life with ease
25. I have good coping skills
26. I can manage stress well
27. Even when I am experiencing difficulties, I am confident things will improve
28. I can maintain a sense of humour under all circumstances

Respect

1. I believe that all people are worthy of respect.
2. Even when someone's beliefs make me angry, I can debate respectfully
3. When I see others bully or demean people, I speak out.
4. Minority groups should be seen as equal partners in society.
5. When others are explaining their views or beliefs, I listen openly – even when I do not agree.
6. I try to understand the mindsets of those with whom I disagree.
7. It is important to me that I treat myself with respect.
8. I keep the secrets and confidences others share with me.
9. I do my best to be on time for teaching sessions.
10. I always try to pay attention in class.
11. I don't hold private conversations during lectures.
12. It is important that thought is given to being inclusive of people with different ability levels.
13. Everyone has knowledge, and I can learn something from everyone I meet.
14. I do my best to take care of spaces and objects I share with others.
15. I know how to take care of myself when under stress.
16. I try to help others who need support.

Ambition

1. I am motivated to achieve my potential
2. I work to be the best I can be
3. I work hard to reach my goals
4. I want to be among the best in my field
5. I want to be recognised as a success
6. I expect to find fulfilment in my work
7. I have a strong drive to succeed
8. Where there are obstacles, I strive to find solutions
9. I am always focused on my ultimate goals
10. I take pride in accomplishment
11. I always have goals toward which I'm working
12. I will stretch myself to achieve all that I can
13. I want to push my profession/discipline forward
14. I want to make the world a better place
15. When I suffer setbacks, I find a new way to reach my goal
16. I am always pushing forward, towards my goals
17. I seek out opportunities to develop myself
18. I want to show how capable I am
19. I am motivated to prove myself
20. I take pride in my successes
21. I want to show that I am a winner
22. I want to get on in life
23. I find creative ways to reach my goals
24. I have a realistic sense of what I can achieve
25. I take active measures to achieve my goals

Appendix 2 – Finalised GAP Scales

Independent and Creative Thinkers

To what extent do you (Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. Find yourself questioning conventional wisdom?
2. Feel comfortable in taking risks in pursuing ideas?
3. Feel comfortable challenging norms?
4. Take time to reflect on information you encounter in your studies?
5. Pursue your own interests, irrespective of the views of others?

To what extent are you (Scale of 1-7; anchors – 1 = not at all, 7 = very much)

6. Open to respectful debate on ideas?
7. Confident in integrating information from different sources?
8. Creative in working with pre-existing information?
9. Able to both recognise and deal with the biases of sources of information?
10. A self-directing learner?

Ambition

To what extent do you agree with the following statements?

(Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. I work hard to reach my goals
2. I want to be among the best in my field
3. I want to be recognised as a success
4. I am always focused on my ultimate goals
5. I take pride in accomplishment
6. I always have goals toward which I'm working
7. I will stretch myself to achieve all that I can
8. I want to push my profession/discipline forward
9. I have a strong drive to succeed
10. I seek out opportunities to develop myself

Effective Global Citizens

To what extent do you agree with the following statements?

(Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. Diversity in a society is a strength, not a weakness
2. I am involved in individual and/or group actions to bring about positive change in society.
3. I support groups who work to bring about positive change in society.
4. I speak out against inequality
5. I consider the social implications of my actions.
6. The common good is more important than individual wealth
7. Those who are socially advantaged should strive to combat social injustice
8. Traditions and social structures should both be changed if they stand in the way of people's rights
9. Social injustice causes real damage to people's lives
10. I try to understand the forces behind social injustice

Integrity

To what extent do you agree with the following statements?

(Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. I behave in ways that are true to my principles
2. I have a strong sense of right and wrong
3. I am truthful
4. I do my best to meet my commitments
5. I speak up when I see people act unethically, even if it might create problems for me to do so
6. I feel a responsibility to right the wrongs I see
7. I have a responsibility to wider society as well as to myself
8. I have a responsibility to my discipline as well as to myself
9. I take time to consider whether my actions are consistent with my principles
10. I am reliable

Resilience

To what extent do you agree with the following statements?

(Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. When I suffer a setback, I bounce back quickly

2. When I am experiencing tough times, I keep on going
3. Even if I don't succeed in a task, I recognise the value of the effort I have made
4. I get over disappointments easily
5. Successes and failures do not affect my worth
6. I draw on multiple resources to help me cope with problems
7. Even the most difficult of times has some positive aspects
8. When I have problems, I focus on finding solutions
9. I can manage stress well
10. Even when I am experiencing difficulties, I am confident things will improve

Socially Responsible

To what extent do you agree with the following statements?

(Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. I am involved in individual and/or group actions to bring about positive change in society.
2. I support groups who work to bring about positive change in society.
3. I try to spread awareness of important social issues.
4. I consider the social implications of my actions.
5. I consider the environmental implications of my actions.
6. I engage with people outside of my immediate social circle.
7. I am prepared to ask for help if I am in need.
8. It is necessary to balance personal wishes with social needs.
9. Personal freedoms should be exercised with consideration of their impact on others.
10. I strive to be aware of both social and environmental matters.

Creators, Evaluators and Communicators of Knowledge

To what extent are you..... (Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. Confident you can communicate academic knowledge to peers and members of your discipline?
2. Confident you can communicate academic knowledge to people who are not familiar with your discipline?
3. Confident in using different media (e.g. oral presentations, written reports, social media) to communicate academic knowledge?

4. Confident of locating the information you need so as to successfully produce good quality academic work?
5. Confident in integrating information from different sources?
6. Confident of your ability to identify flaws in the writings of others?
7. Confident of your ability to identify flaws in your own work?
8. Creative in working with pre-existing information?
9. Confident you can work effectively alone?
10. Confident you can work effectively as part of a team?

Respect

To what extent do you agree with the following statements?
(Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. Even when someone's beliefs make me angry, I can debate respectfully
2. Minority groups should be seen as equal partners in society.
3. When others are explaining their views or beliefs, I listen openly – even when I do not agree.
4. I try to understand the mindsets of those with whom I disagree.
5. It is important to me that I treat myself with respect.
6. I try to pay attention in class.
7. I don't hold private conversations during lectures.
8. It is important that thought is given to being inclusive of people with different ability levels.
9. I can learn something from everyone I meet.
10. I do my best to take care of spaces and objects I share with others.

Compassion

To what extent do you agree with the following statements?
(Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. We should be mindful of the welfare of others.
2. I am prepared to help others where I can.
3. I encourage those close to me to make the changes they want in their lives.
4. It is important to help people who are trying to improve their lives.
5. I work (alone and/or as part of a group) to improve the lots of others.
6. I support groups who are trying to help people.

7. Nobody should be excluded from the support of others.
8. No matter their behaviour or beliefs, people deserve both kindness and respect.
9. We need to tip the scales in favour of those who are less fortunate in life.
10. I never turn away people who speak to me about their problems.

Digitally Fluent

To what extent do you agree with the following statements? I am...
(Scale of 1-7; anchors – 1 = not at all, 7 = very much)

1. Comfortable with the use of email?
2. Confident in using widely used software (such as MS Word, Excel, Powerpoint)?
3. Confident in the use of (or confident you can learn to use) O365 and Google Suite (provided by UCC)?
4. Confident in using (or confident you can learn to use) Canvas (UCC's Virtual Learning Environment)?
5. Confident in using online platforms and/or applications?
6. Comfortable using (or confident you can become comfortable using) the Library's online resources?
7. Aware of how to assess the security of online platforms?
8. Mindful of privacy when using a new online resource?
9. Confident in your ability to critically evaluate online sources of information?
10. Confident you can create blogs and/or podcasts as part of your academic work?

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