

Dublin City University

**Analysis of the Survey**

**“The Voice of Irish academics: Towards a professional development  
strategy” on**

**Changing Nature of Teaching and Learning**

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**(DRAFT Technical Report)**

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## **Analysis of the Survey responses to**

### **Descriptive statistics on ‘Changing nature of teaching and learning’ for the Survey**

#### ***The Voice of Irish academics: Towards a professional development strategy***

### **1.1 Introduction**

The following sections below present a detailed analysis of the survey responses to the issues around changing nature of teaching in higher education. The survey “*The voice of Irish academics: towards a professional development strategy*” explored the views of academic staff across eight higher education institutions in the greater Dublin region on a number of aspects of their work. These included day-to-day teaching and learning, professional development interests and the level of satisfaction with the professional development provision to date. Among DRHEA (Dublin Region Higher Education Alliance) member institutions surveyed were four universities: Dublin City University (DCU), Trinity College Dublin (TCD), University College Dublin (UCD), National University of Ireland Maynooth (NUIM). Additionally, the responses were collected from the lecturing staff in four Institutes of Technology in the greater Dublin regions. These are Dun Laoghaire Institute of Art, Design and Technology (IADT), Dublin Institute of Technology (DIT), Institute of Technology Blanchardstown (ITB) and Institute of Technology Tallaght (ITT). The data collected were analysed with regard to teaching area of the respondents (undergraduate; postgraduate and research supervision; combination of undergraduate and postgraduate and continuing education), disciplinary area, current post of responsibility and the length of employment in higher education. For comparative purposes, the views of respondents in universities are contrasted with those from IoTs.

The Part 2 of the questionnaire which explored the views of academic staff in regard to changing nature of teaching and learning in higher education contained 10 statements. When developing and writing the statements of question 10, the intention was to primarily to cover a broad range of issues and to have the scope to capture most of the aspects of teaching relevant to day-to-day experiences of academic staff. With this purpose in mind, the statement for example included the questions such as

the extent of student engagement in the learning process, attendance in third level, diversity of student body and its impact on teaching and learning, class size and general job satisfaction of the respondents. The questions in Part 2 of the questionnaire required answer on a seven point continuous Likert type scale from “Strongly disagree” to “Strongly agree”. The percentages of the responses for relevant response categories in each statement were calculated and presented in tables below.

## **1.2 Response distribution on changing nature of teaching and learning in higher education**

This section discusses the findings in relation to distribution of responses to question 10 in the survey. The survey respondents were presented with a series of statements in question Q10 of in the questionnaire which aimed to explore their views on the aspects of teaching in higher education. More specifically, the attitudes of academic staff were explored through the analysis of data collected in response to the statements Q10.1 – Q10.10. The results are presented below in Table 1.

### *Even distribution of the responses to questionnaire statements*

As can be seen from the table there is an interesting distribution of the responses across ‘Strongly Disagree’ – ‘Strongly Agree’ categories. There is quite an even distribution to only two statements which asked about the level of classroom engagement by students and teaching aspect of academic role. When the respondents were asked to indicate the level of their agreement/disagreement about ‘*the level of classroom engagement by students has improved in recent years*’ 37.1% expressed agreement, while 37.2% expressed disagreement with the statement. Overall, just under one fifth of those who replied to the statement, agreed or strongly agreed with the general improvement of student engagement in recent years. Equally, just over one fifth stated ‘disagree’ or ‘strongly disagree’ with the statement. In total, 75% (n=90) of those respondents who ‘agreed’ or ‘strongly agreed’ that the level of academic engagement by students has increased in recent years were from universities, while 25% (n=30) from IoTs. In regard to the occupied level of seniority in higher education institutions the data was available for 117 respondents – 12.8% (n=15) selected ‘Professor/Associate Professor’, 72.6% (n=85) selected ‘Lecturer and

Senior Lecturer' option, while 9.4% (n=11) opted for 'Junior / Associate Lecturer' and 5.1% (n=6) opted for 'Researcher' option.

*Table 1 Responses (%) to the statements from question 10 which reflected respondents' perceptions on aspects of teaching in higher education*

	N	SD	D	Some -what D	Neutral	Some- what A	A	SA
Q 10.1 The level of classroom engagement by students has improved in recent years	655	8.2	13.1	15.9	25.6	18.3	14.8	4
Q 10.2 Student attendance levels are declining	649	4.8	11.6	11.4	22	18.3	22.2	9.7
Q 10.3 Increased diversity of the student population has had a positive impact on the classroom learning environment	650	1.4	2.6	6.5	31.8	20.5	25.7	11.5
Q 10.4 Students are increasingly well prepared for third level learning	655	17.4	26.7	27.3	16.9	6.6	4.3	.8
Q 10.5 I am teaching increasingly larger group sizes	653	2	7.4	8.3	23.6	17.8	19.6	21.4
Q 10.6 I struggle to keep with the use of technology demanded by students	654	20	31.2	15.6	15.7	10.9	4.1	2.4
Q 10.7 Teaching is more demanding than any other aspect of my academic activities	651	6.9	18.6	13.8	18.4	15.5	18	8.8
Q 10.8 My research informs my teaching	655	1.2	.6	3.4	7.2	17.7	36.3	33.6
Q 10.9 Teaching is a source of job satisfaction for me	656	.8	.5	1.1	5.8	10.8	39.5	41.6
Q 10.10 Student evaluation of my teaching provides me with useful feedback	655	1.5	3.8	2	9.8	19.5	37.6	25.8

Majority of those who expressed agreement/strong agreement were from the Social Sciences and Humanities (47.5%, n=58) disciplinary group, with just under fifth (18.9%) from Medical and Health Sciences and 33.6% from Science and Technology strand. Interestingly, 82.5% (n=99) highlighted combination of teaching and research as their self-professed area of interest. Overall, those who expressed some form of agreement with the statement Q10.1 ('somewhat agree', 'agree' or 'strongly agree') (n=243) were predominantly teaching combination of undergraduate and postgraduate courses (41.6%, n=99), followed by those teaching only at undergraduate level (36.1%, n=86) and taught postgraduate and research supervision (22.3%, n=53).

Regarding the statement Q10.7, just under one third of the sample (26.8%) selected 'agree' or 'strongly agree' with '*teaching is more demanding than any other aspect of my academic activities*', while 42.3% stated general agreement with this statement (see Table 1). In turn, 39.3% has expressed general disagreement (from somewhat disagree to strongly disagree) with teaching being the most demanding aspect of their academic activities. The responses to the statement Q10.7 were analysed in greater depth. The results indicated that 274 respondents expressed some form of agreement with teaching being far more demanding than any other aspect of academic activities of survey respondents. A more in-depth analysis indicated that teaching aspect of the work perceived to be more demanding the respondents from universities than from IoTs (61.1% as compared to 38.9%). Regarding the posts of responsibility in higher education institution, the majority (76.4%, n=197) indicated holding a post of a Lecturer or Senior lecturer. A much smaller proportion of the respondents (12.4%, n=32) highlighted being employed as a Junior/Associate lecturer with just 5.8% - a Professor/ Associate Professor and 5.4% - a Researcher. The respondents from the Social Sciences and Humanities and Science and Technology strand equally regarded teaching aspect of their academic responsibilities as demanding (44.6% compared to 43.9%). The proportion of the respondents from the Medical and Health Sciences was only 11.5%. Unsurprisingly, that academic staff teaching at undergraduate level regarded teaching as more demanding (46%, n=125). Interestingly, the proportion of the respondents teaching a combination of undergraduate and postgraduate course who gave the same response was also quite high – 42.6%.

#### *Positive skew in the response distribution to questionnaire statements*

Interestingly, there is quite a positive skew in the responses to seven items of question 10. Overall, a 50.2% of the respondents stated agreement with '*student attendance levels are declining*', with just under one third (27.8%) indicated disagreement with the statement. Despite the indicating that student attendance levels are declining, there is an impression that the class size by number of students in higher education has increased. In total, 58.8% expressed some level of agreement with the statement on teaching increasingly larger group sizes, with 41% of whom 'agreed' or 'strongly agreed' with the statement. At the same time just 9.4% of the sample stated 'disagree'

or 'strongly disagree' with teaching larger group sizes. It was also quite a positive response to the statement about effects of the diversity of the student population on the higher education educational environment. As such, 57.7% expressed some agreement with *'increased diversity of the student population has had a positive impact on the classroom environment'* with 37.2% of the sample stating 'agreement' or 'strong agreement'. Nevertheless, about a third (31.8%) of the sample selected the option 'neutral' in response to this statement. Reflecting on distribution of the responses to Q10.10, it can be argued that majority of the sample involve students to provide constructive feedback on their teaching. As can be seen from the table, 82.9% stated some form of agreement with *'student evaluation with my teaching provides me with useful feedback'*. More specifically, 63.4% stated 'agree' or 'strongly agree' in their response to the statement on the positive effects of f students' feedback for teaching and learning. Additionally, it should be highlighted that 87.6% of the survey respondents expressed agreement with *'my research informs my teaching'*, while 69.9% 'agreed' or 'strongly agreed' with linking their research with teaching and learning in general (statement Q10.8). Significantly, 91.9% indicated a being satisfied with teaching aspect of their academic responsibilities. More specifically, 81.1% indicated 'agreement' or 'strong agreement' with *'teaching is a source of job satisfaction for me'*. Additionally, a majority of respondents indicated being well prepared to use the technology ion the teaching and learning. In total, 51.2% opted for 'disagree' or 'strongly disagree' in response to the statement *'I struggle to keep with the use of technology demanded by students'*, with further 15.6% selecting 'somewhat disagree' option in response to this statement.

#### Negative skew in response distribution to questionnaire statements

There was quite a negative response to one statement in regard to changing nature of teaching in higher education. In total, 44.1% of respondents 'disagreed' or 'strongly disagree' with students are being well prepared for third level learning. Further 27.3% of respondents indicated 'somewhat disagree'. Nevertheless, a small minority of survey respondents (11.7%) expressed some form of agreement with students being well prepared for third level learning.

### 1.3 Views on changing nature of teaching and learning across Universities and Institutes of Technology (IoTs)

The distribution of the responses to ten statements of question 10 was obtained and compared for academic staff from four universities and four institutes of technology. Comparing the responses for universities and IoTs, a number of interesting results can be highlighted. First four statements of Q10 specifically explored the views of the academics on the level of student engagement, attendance and preparation for third level teaching (Table 2-4).

*Table 2 Cross tabulation between higher education institution (universities and IoTs) statement Q10.1*

Q10.1: The level of classroom engagement has improved in recent years		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	34	58	80	114	85	71	19
	% of Row	7.4	12.6	17.4	24.7	18.4	15.4	4.1
	% of Total	5.3	9	12.4	17.7	13.2	11	3
IoTs	Count	20	27	23	50	33	24	6
	% of Row	10.9	14.8	12.6	27.3	18	13.1	3.3
	% of Total	3.1	4.2	3.6	7.8	5.1	3.7	.9

(SD – ‘Strongly disagree’; D – ‘Disagree’, SmD – ‘Somewhat disagree’; Neutr – ‘Neutral’; SmA – ‘Somewhat agree’; A - ‘Agree’; SA – ‘Strongly agree’)

Overall, the respondents from universities have been more positive than respondents from IoTs about the levels of classroom engagement by students in recent years. Additionally, it can be highlighted that the response for both groups is quite equally distributed across ‘Strongly disagree’ – ‘Strongly agree’ options.

*Table 3 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.2*

Q10.2: Student attendance levels are declining		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	28	56	50	103	83	97	40
	% of Row	6.1	12.3	10.9	22.5	18.2	21.2	8.8
	% of Total	4.4	8.8	7.8	16.1	13	15.2	6.3
IoTs	Count	2	17	21	39	36	43	23
	% of Row	1.1	9.4	11.6	21.5	19.9	23.8	12.7
	% of Total	.3	2.7	3.3	6.1	5.6	6.7	3.6



Regarding the percentage of the respondents cross the two groups of higher education institutions (universities and IoTs) on views about student attendance levels a couple of remarks can be made. There is a greater agreement that student levels of attendance are declining in recent years among the respondents from IoTs than the respondents from the universities across the categories ‘Agree’ or ‘Strongly agree’ (36.5% as compared to 30%). Reflecting on the general distribution of the responses it is evident that there was quite the distribution is skewed towards the upper end of the scale. Overall, reflecting on the results, it can be concluded that in perception of the academic staff, the attendance levels seem to be higher in universities. Using a Mann-Whitney U test it was found that there was a statistically significant difference in the responses of two groups ( $U=36291$ ,  $z=-2.454$ ,  $p= .014$ ). What it suggests that the participants when grouped by the higher education institution, seem to respond differently to the statement. It means that there is an association between a participant’s place of work and how they respond to the statement.

In turn Table 4 below displays the distribution of the respondents’ views on the fact that increased diversity of the student population has had a positive impact on the classroom learning environment.

*Table 4 Cross tabulation between higher education institution (universities and IoTs) statement and Q10.3*

Q10.3:Increased diversity of the student population has had a positive impact on the classroom learning environment		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	4	10	30	148	98	110	59
	% of Row	.9	2.2	6.5	32.2	21.4	24	12.9
	% of Total	.6	1.6	4.7	23.2	15.3	17.2	9.2
IoTs	Count	5	6	11	54	35	53	16
	% of Row	2.8	3.3	6.1	30	19.4	29.4	8.9
	% of Total	.8	.9	1.7	8.5	5.5	8.3	2.5

At the descriptive level there seem to be similar extent of agreement (for categories ‘Somewhat agree’, ‘Agree’ and ‘Strongly agree’) expressed from the respondents from universities and IoTs. Despite that there is a slightly stronger agreement with the positive impact of diversity on the classroom learning environment for those from

IoTs than from universities when comparing the responses for ‘Agree’ and ‘Strongly agree’ categories (38.3% as compared to 36.9%).

*Table 5 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.4*

Q10.4: Students are increasingly well prepared for third level learning		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	73	127	126	82	30	21	2
	% of Row	15.8	27.5	27.3	17.8	6.5	4.6	.4
	% of Total	11.3	19.7	19.6	12.7	4.7	3.3	.3
IoTs	Count	40	46	50	27	12	5	3
	% of Row	21.9	25.1	27.3	14.8	6.6	2.7	1.6
	% of Total	6.2	7.1	7.8	4.2	1.9	.8	.5

Students preparation for third level learning is a shared concern across the respondents from universities and IoTs as indicated by the cross tabulation of questions 2 and 10.4 (see Table 5). Overall, the respondents from universities appear to be slightly more positive about the extent of students’ preparation for third level learning. The proportion of those from IoTs who has expressed an agreement with statement Q10.4 is very small – 10.9%.

Furthermore, statements Q10.5 – Q10.10 have explored the respondents’ views on some aspects of their academic working life and changing nature of the academic profession. Among these were: the perception on the general increase of student group size, respondents’ perception of their level of expertise in the use of the technology, the extent of integrating research into teaching and teaching as a source of job satisfaction. Analysing the distribution of the responses to the statement Q10.5 a few remarks can be made (Cross tabulation in Table 6). First, the distribution of the responses is skewed to the upper end of the scale, with a higher proportion of the respondents from both groups expressing agreement with the statement. Secondly, the response from the staff in universities is slightly more positive with a higher proportion indicating agreement as compared to the respondents from IoTs (60.1% compared to 55.4%).

*Table 6 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.5*

Q10.5: I am teaching increasingly larger group sizes		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	9	34	38	102	84	90	101
	<i>% of Row</i>	2	7.4	8.3	22.3	18.3	19.7	22.1
	<i>% of Total</i>	1.4	5.3	5.9	15.9	13.1	14	15.7
IoTs	Count	4	13	15	50	31	35	36
	<i>% of Row</i>	2.2	7.1	8.2	27.2	16.8	19	19.6
	<i>% of Total</i>	.6	2	2.3	7.8	4.8	5.5	5.6

Also, there was quite a positive response from both groups of respondents to the statement which explored the views on the use of technology in the process to teaching and learning (Table 7 below). Overall, less than one fifth of the respondents from the universities and the IoTs in the Dublin region expressed some form of agreement that they struggle to keep up with the use of technology demanded by students. Furthermore, up to 70% of the lecturing staff in universities disagreed with the statement. Similar response was recorded for those teaching in IoTs. Reflecting on the results, it can be argued that the majority of the respondents from both groups have had a positive image of themselves as competent and proficient users of technology.

*Table 7 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.6*

Q10.6: I struggle to keep with the use of technology demanded by students		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	91	146	78	70	53	14	9
	<i>% of Row</i>	19.7	31.7	16.9	15.2	11.5	3	2
	<i>% of Total</i>	14.2	22.7	12.1	10.9	8.2	2.2	1.4
IoTs	Count	39	54	24	29	17	13	6
	<i>% of Row</i>	21.4	29.7	13.2	15.9	9.3	7.1	3.3
	<i>% of Total</i>	6.1	8.4	3.7	4.5	2.6	2	.9

Interestingly, the response distribution to the statement Q10.7 as indicated in Table 8 was positively skewed for the respondents from IoTs, while the results revealed a negative skew for the respondents from universities. What it means is that teaching was perceived to be more demanding by the respondents from IoTs than by those from universities. In total, 58% of the respondents from IoTs expressed agreement with teaching being more demanding than any other aspect of their academic activities. In turn, only 35.9% of respondents from universities indicated the same response. To note, there was an indication that the type of higher education institution does seem to be a factor in the perceived level of demand place by teaching ( $U=31415.5$ ,  $z=-4.904$ ,  $p=.000$ ).

*Table 8 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.7*

Q10.7: Teaching is more demanding than any other aspect of my academic activities		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	35	94	78	88	64	73	28
	% of Row	7.6	20.4	17	19.1	13.9	15.9	6.1
	% of Total	5.5	14.7	12.2	13.7	10	11.4	4.4
IoTs	Count	10	26	12	28	35	43	27
	% of Row	5.5	14.4	6.6	15.5	19.3	23.8	14.9
	% of Total	1.6	4.1	1.9	4.4	5.5	6.7	4.2

In turn, statement Q10.8 in the questionnaire explored the views of the respondents from universities and IoTs on the extent to which their research informs their teaching. Reflecting on the results presented in Table 9 below, it is evident that a higher proportion of the respondents from the universities agreed that their research informs their teaching than those from IoTs. As such, 90% of those from universities selected the response option ‘somewhat agree’, ‘agree’ or ‘strongly agree’, while only 82% of the lecturing staff in IoTs stated the same response. There was also seem to be an association between the type of higher education institution and respondents’ views on the extent to which their research informs their teaching ( $U=38247.5$ ,  $z=-2.004$ ,  $p=.045$ ).

*Table 9 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.8*

Q10.8: My research informs my teaching		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	3	2	14	27	80	176	158
	<i>% of Row</i>	.7	.4	3	5.9	17.4	38.3	34.3
	<i>% of Total</i>	.5	.3	2.2	4.2	12.4	27.3	24.5
IoTs	Count	4	2	8	19	35	58	58
	<i>% of Row</i>	2.2	1.1	4.3	10.3	19	31.5	31.5
	<i>% of Total</i>	.6	.3	1.2	3	5.4	9	9

Reflecting on the response to the statement Q10.9 presented in Table 10, it is evident that for the majority of the respondents from both groups teaching appears to be a source of job satisfaction. Notably, 94% of those from the universities expressed some form of agreement with that teaching is a source of job satisfaction for them, while 82.7% ‘agreed’ or ‘strongly agreed’. Reflecting on the results for those in IoTs, teaching appears to be a job satisfaction for 87.5% of the respondents, while 78.3% ‘agree’ or ‘strongly agree’. Overall, the response distribution for both groups is skewed towards the upper end of the scale

*Table 10 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.9*

Q10.9: Teaching is a source of job satisfaction for me		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	2	2	4	20	52	187	194
	<i>% of Row</i>	.4	.4	.9	4.3	11.3	40.6	42.1
	<i>% of Total</i>	.3	.3	.6	3.1	8.1	29	30.1
IoTs	Count	3	1	2	17	17	69	75
	<i>% of Row</i>	1.6	.5	1.1	9.2	9.2	37.5	40.8
	<i>% of Total</i>	.5	.2	.3	2.6	2.6	10.7	11.6

And finally, the last statement in question 10 specifically explored the views on whether the respondents generally find students’ evaluation of their teaching as helpful and providing a useful feedback. The results indicated that the response distribution for both groups of respondents was very similar. As such, 83.7% of the

respondents from universities agreed that student evaluation of their teaching is useful for them, while 81.5% of the respondents from IoTs stated the same response.

*Table 11 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.10*

Q10.10: Student evaluation of my teaching provides me with useful feedback		SD	D	SmD	Neutr	SmA	A	SA
Univers.	Count	8	15	7	45	92	172	121
	<i>% of Row</i>	<i>1.7</i>	<i>3.3</i>	<i>1.5</i>	<i>9.8</i>	<i>20</i>	<i>37.4</i>	<i>26.3</i>
	<i>% of Total</i>	<i>1.2</i>	<i>2.3</i>	<i>1.1</i>	<i>7</i>	<i>14.3</i>	<i>26.7</i>	<i>18.8</i>
IoTs	Count	2	8	6	18	36	70	44
	<i>% of Row</i>	<i>1.1</i>	<i>4.3</i>	<i>3.3</i>	<i>9.8</i>	<i>19.6</i>	<i>38</i>	<i>23.9</i>
	<i>% of Total</i>	<i>.3</i>	<i>1.2</i>	<i>.9</i>	<i>2.8</i>	<i>5.6</i>	<i>10.9</i>	<i>6.8</i>

#### **1.4 Views on changing nature of teaching and learning across different posts of responsibility (levels of seniority) of lecturing staff**

In the attempt to provide a more in-depth analysis and discussion of the results in relation to the changing nature of teaching and learning in higher education, the data was additionally analysed with regard to the posts of responsibility of survey respondents. The baseline data on the respondents' level of the current position was discussed earlier when reporting the results on the highest and lowest ranking areas of interest for professional development. Nevertheless, as a brief reminder on the results the distribution was as follows: 'Professor, Associate Professor and Senior lecturer' – 28.4% (n=184); 'Lecturer, Junior/Associate lecturer' – 63.4% (n=411) and 'Researcher' – 8.2% (n=53).

Statement Q10.1 explored the respondents' views on the change in levels of classroom engagement by students in recent levels. The data analyses indicated that the most disagreement with the statement was expressed by those in the group 'Professor, Associate Professor and Senior lecturer'. In total, 42.3% of respondents in this group expressed some level of disagreement, while 20.6% 'disagreed' or 'strongly disagreed'.

*Table 12 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.1*

Q10.1: The level of classroom engagement by students has improved in recent years		SD	D	SmD	Neutr	SmA	A	SA
Professor, Associate Professor, Senior lecturer	Count	16	21	39	40	30	28	6
	% of Row	8.9	11.7	21.7	22.2	16.7	15.6	3.3
	% of Total	2.6	3.4	6.4	6.5	4.9	4.6	1
Lecturer, Junior/Associate lecturer	Count	34	57	53	98	75	58	19
	% of Row	8.6	14.5	13.5	24.9	19	14.7	4.8
	% of Total	5.5	9.3	8.6	16	12.2	9.4	3.1
Researcher	Count	1	4	5	18	6	5	1
	% of Row	2.5	10	12.5	45	15	12.5	2.5
	% of Total	.2	.7	.8	2.9	1	.8	.2

*Table 13 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.2*

Q10.2: Student attendance levels are declining		SD	D	SmD	Neutr	SmA	A	SA
Professor, Associate Professor, Senior lecturer	Count	8	25	17	39	36	39	15
	% of Row	4.5	14	9.5	21.8	20.1	21.8	8.4
	% of Total	1.3	4.1	2.8	6.4	5.9	6.4	2.5
Lecturer, Junior/Associate lecturer	Count	22	39	46	77	69	92	46
	% of Row	5.6	10	11.8	19.7	17.6	23.5	11.8
	% of Total	3.6	6.4	7.6	12.6	11.3	15.1	7.6
Researcher	Count	.	5	6	18	6	4	.
	% of Row	.	12.8	15.4	46.2	15.4	10.3	.
	% of Total	.	.8	1	3	1	.7	.

In turn, a greater agreement among three groups of respondents with the increased levels of classroom engagement by students was recorded for those in ‘Lecturer, Junior/Associate lecturer’ category. Overall, the responses for all three groups were quite equally distributed across all response categories.

Furthermore, when reflecting on the distribution of the responses across three groups of respondents according to their seniority levels in regard to the decline in student

attendance levels a number of remarks can be made (Table 13). First, just under half of those in 'Researcher' category have opted for 'neutral' response category when responding that students' attendance levels are declining. Secondly, just above a half of the respondents from two groups 'Professor, Associate Professor and Senior lecturer' and 'Lecturer, Junior/Associate lecturer' expressed agreement with the decline in student attendance in recent years. To summarise, there was a positive distribution of the responses across these two groups, while for those in 'Researcher' category a negative response distribution was observed. A Kruskal-Wallis test confirmed that level of seniority was a factor in respondents' views on the decline in student attendance levels:  $\chi^2(2, n=609) = 6.41, p = .041$ .

Comparing the distribution of responses falling into categories 'somewhat agree' – 'strongly agree' on the response scale, the respondents from 'Lecturer, Junior/Associate lecturer' expressed a greater agreement (60.1%) with that an increased diversity of the student population has had a positive impact on the classroom learning environment. In turn, the results for same response categories for those in 'Professor, Associate Professor, Senior Lecturer' and 'Researcher' bands were as follows: '59.6%' and '25.7%'. The difference in the responses was not statistically significant.

Exploring the results in regard to the levels of agreement/disagreement that students are increasingly well prepared for third level learning, it was evident that the majority of the respondents in all three categories disagreed with the statement. The distribution of the results for the three groups across 'strongly disagree' – 'somewhat disagree' was as follows: 'Professor, Associate Professor, Senior lecturer' – 70.1%, 'Lecturer, Junior/Associate lecturer' - 73.5% and 'Researcher' – 61.5%. Nevertheless, the difference in response distribution was not statistically significant.



Table 14 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.5

Q10.5: I am teaching increasingly larger group sizes		SD	D	SmD	Neutr	SmA	A	SA
Professor, Associate Professor, Senior lecturer	Count	3	18	13	44	36	36	30
	% of Row	1.7	10	7.2	24.4	20	20	16.7
	% of Total	.5	2.9	2.1	7.2	5.9	5.9	4.9
Lecturer, Junior/Associate lecturer	Count	9	24	31	81	66	78	103
	% of Row	2.3	6.1	7.9	20.7	16.8	19.9	26.3
	% of Total	1.5	3.9	5.1	13.2	10.8	12.7	16.8
Researcher	Count	0	3	7	17	4	8	1
	% of Row	.	7.5	17.5	42.5	10	20	2.5
	% of Total	.	.5	1.1	2.8	.7	1.3	.2

Interesting result was observed when analysing cross tabulation presented in Table 14. The majority of those who expressed agreement with teaching increasingly larger group sizes as explored through Q10.5 were from the ‘Lecturer, Junior/Associate lecturer’ category, while the minority – from ‘Researcher’ category (32.5%). Additionally, just over a half of the respondents from ‘Professor, Associate Professor, Senior lecturer’ band similarly agreed with teaching larger group sizes. A Kruskal-Wallis test confirmed that seniority level was a factor in respondents’ expressed levels of agreement with teaching larger group sizes:  $\chi^2(2, n=612) = 15.39, p = .000$ .

Table 15 below presents cross tabulation on the respondents views on the use of the technology demanded by students. As can be seen from the table, there is a positive skew in the distribution across the response categories for three groups of respondents. Over 70% of the respondents from the ‘Professor, Associate Professor, Senior lecturer’ and ‘Researcher’ have ‘strongly disagreed’ to ‘somewhat disagreed’ with struggling to keep up with the technology demanded by students. Despite the fact that a slightly lower proportion from those in ‘Lecturer, Junior/Associate lecturer’ category recorded the same response (65.8%), a Kruskal-Wallis test confirmed that the level of seniority was not a factor in respondents’ views on their competence to use the technology. Overall, reflecting on the results it can be argued that the respondents viewed themselves as quite competent and proficient users of the technology.

Table 15 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.6

Q10.6: I struggle to keep up with the use of technology demanded by students		SD	D	SmD	Neutr	SmA	A	SA
Professor, Associate Professor, Senior lecturer	Count	37	52	38	23	19	6	3
	% of Row	20.8	29.2	21.3	12.9	10.7	3.4	1.7
	% of Total	6	8.5	6.2	3.8	3.1	1	.5
Lecturer, Junior/Associate lecturer	Count	78	130	52	61	43	20	11
	% of Row	19.7	32.9	13.2	15.4	10.9	5.1	2.8
	% of Total	12.7	21.2	8.5	10	7	3.3	1.8
Researcher	Count	7	14	7	9	3	0	0
	% of Row	17.5	35	17.5	22.5	7.5	.	.
	% of Total	1.1	2.3	1.1	1.5	.5	.	.

Interesting result was observed for the response distribution to statement Q10.7 which asked about how demanding teaching is comparing with other academic activities of the survey respondents (please see Table 16). About a half of the respondents in the group ‘Professor, Associate Professor, Senior lecturer’ (50.5%) expressed some level of disagreement with teaching being more demanding than any other aspect of their academic activities. Additionally, those in the ‘Researcher’ group expressed a similar extent of disagreement with the teaching is being more demanding than any other aspect of their academic. The figure for this group was 47.5%, while for those in ‘Lecturer, Junior/Associate lecturer’ was just 34%. As also can be seen from the table, just under a half of the respondents from ‘Lecturer, Junior/Associate lecturer’ expressed agreement with teaching being more demanding than any other aspect of their academic activities (47.5%), while for those in ‘Researcher’ groups only 7.5% ‘agreed’ with the statement. In turn, a Kruskal-Wallis test revealed that the level of seniority was a factor in the response to the statement Q10.7:  $\chi^2(2, n=610) = 21.456$ ,  $p = .000$ .

Table 16 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.7

Q10.7: Teaching is more demanding than any other aspect of my academic activities		SD	D	SmD	Neutr	SmA	A	SA
Professor, Associate Professor, Senior lecturer	Count	20	41	29	30	23	28	7
	% of Row	11.2	23	16.3	16.9	12.9	15.7	3.9
	% of Total	3.3	6.7	4.8	4.9	3.8	4.6	1.1
Lecturer, Junior/Associate lecturer	Count	21	59	53	73	62	79	45
	% of Row	5.4	15.1	13.5	18.6	15.8	20.2	11.5
	% of Total	3.4	9.7	8.7	12	10.2	13	7.4
Researcher	Count	1	16	2	7	7	6	1
	% of Row	2.5	40	5	17.5	17.5	15	2.5
	% of Total	.2	2.6	.3	1.1	1.1	1	.2

Table 17 presents a cross tabulation on the respondents views regarding the extent to which their research informs their classroom teaching. The differences in the responses across three groups are most marked for those in ‘Researcher’ category. More specifically, 95% of researchers expressed ‘agreement’ with that their research informs their teaching. Additionally, over 90% of the respondents in ‘Professor, Associate Professor, Senior lecturer’ groups ‘somewhat agreed’ to ‘strongly agreed’ that their research informs their teaching. Although the proportion of the respondents in ‘Lecturer, Junior/Associate lecturer’ was lower, the majority of the respondents in this group expressed agreement with the statement (84.5%). A Kruskal-Wallis test established that the level of seniority of the respondents was a factor in views on the extent to which their research informs their teaching:  $\chi^2(2, n=614) = 6.492, p = .039$ .

Table 17 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.8

Q10.8: My research informs my teaching		SD	D	SmD	Neutr	SmA	A	SA
Professor, Associate Professor, Senior lecturer	Count	1	0	6	7	33	76	56
	<i>% of Row</i>	.6	.	3.4	3.9	18.4	42.5	31.3
	<i>% of Total</i>	.2	.	1	1.1	5.4	12.4	9.1
Lecturer, Junior/Associate lecturer	Count	5	4	16	36	72	132	130
	<i>% of Row</i>	1.3	1	4.1	9.1	18.2	33.4	32.9
	<i>% of Total</i>	.8	.7	2.6	5.9	11.7	21.5	21.2
Researcher	Count	1	0	0	1	7	10	21
	<i>% of Row</i>	2.5	.	.	2.5	17.5	25	52.5
	<i>% of Total</i>	.2	.	.	.2	1.1	1.6	3.4

Statement Q10.9 in the questionnaire explored respondents' views on teaching being a source of job satisfaction. Overall, (according to the percentage of the respondents opting for the 'somewhat agree', 'agree' or 'strongly agree' response options on the scale), the respondents across all three groups expressed similar extent of agreement with the statement (see cross tabulation in Table 18). As such, over 90% of respondents from all three groups expressed agreement that their teaching is a source of job satisfaction for them. A Kruskal-Wallis test revealed that this result was not statistically significant.

Table 18 Cross tabulation between higher education institution (universities and IoTs) and statement Q10.9

Q10.9: Teaching is a source of job satisfaction for me		SD	D	SmD	Neutr	SmA	A	SA
Professor, Associate Professor, Senior lecturer	Count	1	2	3	8	20	72	73
	% of Row	.6	1.1	1.7	4.5	11.2	40.2	40.8
	% of Total	.2	.3	.5	1.3	3.3	11.7	11.9
Lecturer, Junior/Associate lecturer	Count	4	1	3	22	40	152	174
	% of Row	1	.3	.8	5.6	10.1	38.4	43.9
	% of Total	.7	.2	.5	3.6	6.5	24.7	28.3
Researcher	Count	0	0	0	3	5	21	11
	% of Row	.	.	.	7.5	12.5	52.5	27.5
	% of Total	.	.	.	.5	.8	3.4	1.8

The last statement in question 10 or the questionnaire asked respondents' views whether students' evaluation of their teaching is a useful source of students' feedback. The majority of respondents from the two groups 'Professor, Associate Professor, Senior lecturer' (85.5%) and 'Lecturer, Junior/Associate lecturer' (83.2%) expressed a high level of agreement with the statement. Nevertheless, a slightly smaller proportion of those in 'Researcher' category (77.5%) also expressed agreement with that the student evaluation of their teaching provides them with useful feedback. Nevertheless, a Kruskal-Wallis test revealed that the difference in responses was not statistically significant.

### 1.5 Views on changing nature of teaching and learning according to the primary academic discipline (Social Sciences and Humanities, Science and Technology and Medical and Health Sciences)

The section below discusses the results of the survey analysis on changing nature of teaching and learning in relation to three disciplines of the respondents. These are Social Sciences and Humanities, Science and Technology and Medical and Health Sciences. In particular, perceptions of lecturing staff across eight higher education institutions in the Dublin region has been additionally explored in regard to the disciplinary areas of the participants. As was discussed earlier, the baseline data on respondents' academic discipline was available for 11 distinct disciplinary areas.

Nevertheless, to provide a more balanced analysis and discussion of the responses 11 disciplines were collapsed just in three bands – ‘Social Sciences and Humanities’, ‘Medical and Health Sciences’ and ‘Science and Technology’. Nevertheless, as a brief reminder on the results the distribution was as follows: ‘Social Sciences and Humanities’ – 46.4% (n=317); ‘Medical and Health Sciences’ – 14.2% (n=97) and ‘Science and Technology’ – 39.4% (n=269).

Table 19 below presents a cross tabulation between respondents’ disciplinary area and their agreement/disagreement with the statement Q10.1 in the questionnaire. The statement particularly explored the extent of agreement with that the level of classroom engagement by students has improved in recent years. Reflecting on the results of the response distribution a number of remarks can be made. Firstly, there is quite a positive skew in the results distribution for the respondents from Social Sciences and Humanities and Science and Medical and Health Sciences. Secondly, a greater agreement with statement Q10.1 was observed from the respondents in Medical and Health Sciences. More specifically, just under a half of the respondents (49.5%) selected categories ‘somewhat agree’ to ‘strongly agree’. A smaller proportion of the respondents from the remaining two disciplinary areas opted for the same response options (please see Table 19). Nevertheless, the difference in the responses was not statistically significant.

*Table 19 Cross tabulation between respondents’ disciplinary area and statement Q10.1*

Q10.1: The level of classroom engagement by students has improved in recent years		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	21	39	54	79	45	45	13
	<i>% of Row</i>	7.1	13.2	18.2	26.7	15.2	15.2	4.4
	<i>% of Total</i>	3.3	6.1	8.4	12.3	7	7	2
Medical and Health Sciences	Count	9	6	13	19	23	21	2
	<i>% of Row</i>	9.7	6.5	14	20.4	24.7	22.6	2.2
	<i>% of Total</i>	1.4	.9	2	3	3.6	3.3	.3
Science and Technology	Count	23	39	35	66	49	31	10
	<i>% of Row</i>	9.1	15.4	13.8	26.1	19.4	12.3	4
	<i>% of Total</i>	3.6	6.1	5.5	10.3	7.6	4.8	1.6

The increase/decline in levels of student attendance in recent years was explored through statement Q10.2 in the questionnaire. The results are presented in Table 20 below. There is a positive skew in the distribution for the respondents from two disciplinary areas – Social Sciences and Humanities and Science and Technology. In particular, over a half of the respondents from these two areas expressed agreement with that student attendance levels are declining. The percentage for those from Medical and Health sciences was much smaller with only 37.7% choosing categories ‘somewhat agree’, ‘agree’ or ‘strongly agree’. To explore if a disciplinary area was a factor in how survey respondents answered this questionnaire statement, a Kruskal-Wallis test was carried out. The result indicated that primary discipline was a factor in the perceived decline of student attendance:  $\chi^2(2, n=638) = 9.11, p = .01$ .

*Table 20 Cross tabulation between respondents’ disciplinary area and statement Q10.2*

Q10.2: Student attendance levels are declining		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	20	31	31	58	63	62	27
	% of Row	6.8	10.6	10.6	19.9	21.6	21.2	9.2
	% of Total	3.1	4.9	4.9	9.1	9.9	9.7	4.2
Medical and Health Sciences	Count	9	16	14	19	9	17	9
	% of Row	9.7	17.2	15.1	20.4	9.7	18.3	9.7
	% of Total	1.4	2.5	2.2	3	1.4	2.7	1.4
Science and Technology	Count	2	27	27	63	46	62	26
	% of Row	.8	10.7	10.7	24.9	18.2	24.5	10.3
	% of Total	.3	4.2	4.2	9.9	7.2	9.7	4.1

In turn, the next statement of the questionnaire, statement Q10.3, explored the agreement/ disagreement levels with the positive impact of increase in student diversity on classroom learning environment. More specifically, three observations were made. Firstly, there was a positive response distribution across all three disciplinary areas. Secondly, there was a slightly higher extent of agreement recorded for the respondents from respondents from Social Science and Humanities grouping. More specifically, 63.9% of the respondents in this category have chosen ‘somewhat agree’, ‘agree’ or ‘strongly agree’. The respondents from the Medical and Health Sciences have expressed a slightly lower level of agreement with 58.1% opting for the

same response options ('somewhat agree', 'agree' or 'strongly agree'). And finally, 50.9% of respondents from Science and Technology have selected same response options. Thirdly, a Kruskal-Wallis test established that there was a statistically significant difference in the responses across the three disciplinary areas:  $\chi^2$  (2, n=637) = 18.31, p= .000 (Table 21).

*Table 21 Cross tabulation between respondents' disciplinary area and statement Q10.3*

Q10.3: Increased diversity of the student population has had a positive impact on the classroom learning environment		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	4	7	12	82	53	83	50
	% of Row	1.4	2.4	4.1	28.2	18.2	28.5	17.2
	% of Total	.6	1.1	1.9	12.9	8.3	13	7.8
Medical and Health Sciences	Count	2	2	8	27	18	29	7
	% of Row	2.2	2.2	8.6	29	19.4	31.2	7.5
	% of Total	.3	.3	1.3	4.2	2.8	4.6	1.1
Science and Technology	Count	3	6	21	94	59	53	17
	% of Row	1.2	2.4	8.3	37.2	23.3	20.9	6.7
	% of Total	.5	.9	3.3	14.8	9.3	8.3	2.7

Interesting result was recorded for the statement Q10.4 which explored the extent of agreement / disagreement with the fact that students are increasingly well prepared for third level learning. As can be seen from the Table 22 below, the greatest levels of disagreement with the statement were expressed by the respondents from the area of Science and Technology with total of 73.9 % have chosen categories 'strongly disagree' to 'somewhat disagree'. Regarding the respondents from Social Sciences and Humanities disciplinary area, a slightly smaller proportion (70.2%) of the respondents has selected same response categories. And finally, 68.1% of the respondents from Medical and Health Sciences expressed disagreement with that students are increasingly well prepared for third level learning. This again was observed for the categories 'strongly disagree' to 'somewhat disagree'. The response distribution across all three disciplinary areas was negatively skewed. Nevertheless, a Kruskal-Wallis test did not confirm that the disciplinary area was a factor in how respondents answered the statement Q10.4.



Table 22 Cross tabulation between respondents' disciplinary area and statement Q10.4

Q10.4: Students are increasingly well prepared for third level learning		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	54	75	79	52	17	16	3
	% of Row	18.2	25.3	26.7	17.6	5.7	5.4	1
	% of Total	8.4	11.7	12.3	8.1	2.6	2.5	.5
Medical and Health Sciences	Count	14	24	26	15	13	2	0
	% of Row	14.9	25.5	27.7	16	13.8	2.1	.
	% of Total	2.2	3.7	4	2.3	2	.3	.
Science and Technology	Count	43	74	70	41	13	10	2
	% of Row	17	29.2	27.7	16.2	5.1	4	.8
	% of Total	6.7	11.5	10.9	6.4	2	1.6	.3

Regarding the response distribution to the statement Q10.5 which explored respondents' agreement/disagreement with teaching increasingly larger group sizes of students, a few observations can be made. Firstly, the responses across three disciplinary areas were skewed towards the upper end of the scale, indicating general agreement with the increase in the group sizes (Table 23).

Table 23 Cross tabulation between respondents' disciplinary area and statement Q10.5

Q10.5: I am teaching increasingly larger group sizes		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	4	23	20	58	54	55	82
	% of Row	1.4	7.8	6.8	19.6	18.2	18.6	27.7
	% of Total	.6	3.6	3.1	9.1	8.4	8.6	12.8
Medical and Health Sciences	Count	6	8	13	12	16	18	19
	% of Row	6.5	8.7	14.1	13	17.4	19.6	20.7
	% of Total	.9	1.3	2	1.9	2.5	2.8	3
Science and Technology	Count	3	16	20	80	43	53	37
	% of Row	1.2	6.3	7.9	31.7	17.1	21	14.7
	% of Total	.5	2.5	3.1	12.5	6.7	8.3	5.8

Secondly, a slightly higher agreement was observed for the respondents in the area of Social Sciences and Humanities with 64.5% selecting categories 'somewhat agree' –

‘Strongly agree’. Also, over a half of the respondents from the remaining two areas – Medical and Health sciences and Science and Technology opted for the same response categories. Interestingly, just under a third (31.7%) of the respondents from the disciplinary area of Science and Technology opted for the response option ‘neutral’. This could be indicative of the fact that this particular proportion of the respondents was not sure if the group size of the students they teach either increased or decreased in recent years. However, a Kruskal-Wallis test established a statistically significant difference in the responses across the three disciplinary areas:  $\chi^2(2, n=640) = 9.35, p = .009$ .

Regarding the response distribution to statement Q10.6, the survey participants’ response was largely positive. As such, 68.8% of the respondents in the area of Science and Technology opted for the categories ‘strongly disagree’ – ‘somewhat disagree’. For those in the area of Social Sciences and Humanities, 67.4% of the respondents selected the same response categories, while 61.89% from Medical and Health Sciences stated the same level of disagreement. Overall, it can be argued that the majority of the respondents within three disciplinary responded positively about their ability to keep up with the use of technology demanded by students. Nevertheless, just under a fifth of those in the Medical and Health Sciences agreed with struggling to keep up with the technology demanded by students. A Kruskal – Wallis test revealed that this difference was not statistically significant.

The respondents views whether teaching is more demanding than any other aspect of their academic activities was explored through the response to statement Q10.7 of the questionnaire. The results on response distribution are presented below in Table 24. As can be seen from the Table there is an even response distribution either of the side of the scale for all three groups of respondents. At a closer look however, those from the area of Science and Technology expressed greater agreement with teaching is being more demanding than any other aspect of their academic activities with just under a fifth (46.8%) selecting ‘somewhat agree’ – ‘strongly agree’. In turn, 41% of those in the area of Social Sciences and Humanities expressed the same level of agreement, while just 33% of respondents from Medical and Health Sciences opted for the same response option. Despite the difference in 13% across the two

disciplinary areas (Science and Technology and Medical and Health Sciences) the difference was no statistically significant, as confirmed by Kruskal – Wallis test.

*Table 24 Cross tabulation between respondents' disciplinary area and statement Q10.7*

Q10.7: Teaching is more demanding than any other aspect of my academic activities		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	24	48	49	52	50	48	22
	<i>% of Row</i>	8.2	16.4	16.7	17.7	17.1	16.4	7.5
	<i>% of Total</i>	3.8	7.5	7.7	8.1	7.8	7.5	3.4
Medical and Health Sciences	Count	6	21	16	20	9	14	8
	<i>% of Row</i>	6.4	22.3	17	21.3	9.6	14.9	8.5
	<i>% of Total</i>	.9	3.3	2.5	3.1	1.4	2.2	1.3
Science and Technology	Count	14	50	25	45	37	55	26
	<i>% of Row</i>	5.6	19.8	9.9	17.9	14.7	21.8	10.3
	<i>% of Total</i>	2.2	7.8	3.9	7	5.8	8.6	4.1

Furthermore, Table 25 below presents a response distribution to statement Q10.8 on survey participants' agreement/disagreement with the fact that their research informs their teaching. Reflecting on the results across all three disciplinary areas, just under 90% of the respondents indicated agreement with the statement.

*Table 25 Cross tabulation between respondents' disciplinary area and statement Q10.8*

Q10.8: My research informs my teaching		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	4	2	9	18	48	103	112
	<i>% of Row</i>	1.4	.7	3	6.1	16.2	34.8	37.8
	<i>% of Total</i>	.6	.3	1.4	2.8	7.5	16	17.4
Medical and Health Sciences	Count	0	2	3	7	11	38	32
	<i>% of Row</i>	.	2.2	3.2	7.5	11.8	40.9	34.4
	<i>% of Total</i>	.	.3	.5	1.1	1.7	5.9	5
Science and Technology	Count	3	0	10	22	55	94	69
	<i>% of Row</i>	1.2	.	4	8.7	21.7	37.2	27.3
	<i>% of Total</i>	.5	.	1.6	3.4	8.6	14.6	10.7

Nevertheless, a slightly higher percentage of those in the area of Social Sciences and Humanities (88.8%) than in other two disciplinary area ‘agreed’ that their research informs their teaching. More over, a Kruskal – Wallis test revealed that there was a statistically difference in responses across three groups:  $\chi^2 (2, n=642) = 7.497$ ,  $p=.024$ .

Quite high level of agreement was observed in response to the statement Q10.9 of the questionnaire. More specifically, the statement explored the levels of agreement/disagreement with teaching is being a source of job satisfaction for the survey respondents (Table 26). The results of the data analysis revealed that over 90% of the respondents across all three disciplinary areas: Social Sciences and Humanities, Medical and health Sciences and Science and Technology expressed some form of agreement with the statement. Moreover, over 80% of the respondents in Social Sciences and Humanities and Medical and Health Sciences ‘agreed’ or ‘strongly agreed’ with the statement. While for those in the area of Science and Technology the proportion of those who ‘agreed’ or ‘strongly agreed’ was slightly lower. A Kruskal-Wallis test revealed that disciplinary area was a factor in how respondents answered Q10.9:  $\chi^2 (2, n=644) = 22.87$ ,  $p=.000$ .

*Table 26 Cross tabulation between respondents’ disciplinary area and statement Q10.9*

Q10.9: Teaching is a source of job satisfaction for me		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	3	2	1	16	30	87	157
	% of Row	1	.7	.3	5.4	10.1	29.4	53
	% of Total	.5	.3	.2	2.5	4.7	13.5	24.4
Medical and Health Sciences	Count	1	0	1	6	7	40	39
	% of Row	1.1	.	1.1	6.4	7.4	42.6	41.5
	% of Total	.2	.	.2	.9	1.1	6.2	6.1
Science and Technology	Count	1	1	4	16	33	126	73
	% of Row	.4	.4	1.6	6.3	13	49.6	28.7
	% of Total	.2	.2	.6	2.5	5.1	19.6	11.3

Regarding the response distribution to statement Q10.10, there was a positive skew towards the upper end of the scale. More specifically, the majority of the respondents

across three disciplinary areas expressed agreement that student evaluation of their teaching provides them with useful feedback. Interestingly, over 90% of those in Medical and Health Sciences have chosen ‘somewhat agree’ – ‘strongly agree’ in their response to the statement. In turn, just over 80% of the respondents from Social Sciences and Humanities and Science and Technology disciplinary areas have opted for the same response option. Overall, it can be stated that there was a positive skew in the response distribution towards the upper end of the scale. But the difference in the responses, as also confirmed by a Kruskal-Wallis test was not statistically significant (please see Table 27).

*Table 27 Cross tabulation between respondents’ disciplinary area and statement Q10.10*

Q10.10: Student evaluation of my teaching provides me with useful feedback		SD	D	SmD	Neutr	SmA	A	SA
Social Sciences and Humanities	Count	7	14	6	31	53	100	84
	% of Row	2.4	4.7	2	10.5	18	33.9	28.5
	% of Total	1.1	2.2	.9	4.8	8.3	15.6	13.1
Medical and Health Sciences	Count	2	2	1	4	17	39	29
	% of Row	2.1	2.1	1.1	4.3	18.1	41.5	30.9
	% of Total	.3	.3	.2	.6	2.6	6.1	4.5
Science and Technology	Count	1	7	5	28	55	103	54
	% of Row	.4	2.8	2	11.1	21.7	40.7	21.3
	% of Total	.2	1.1	.8	4.4	8.6	16	8.4

### **1.6 Views on changing nature of teaching and learning according to the length of employment in higher education**

The following section discusses the results of the survey analysis in regard to the levels of agreement / disagreement with changing nature of teaching and learning of the lecturing staff across eight higher education institutions in the Dublin region. More specifically, the data in this section was analysed with regard to the length of respondents’ employment in the area of higher education. The length of the employment (in years) was analysed though the breakdown of responses to question Q6 in questionnaire. For the purposes of the analysis the length of employment was

collapsed into four bands – ‘5 years and less’, ‘6 to 10 years’, ‘11 to 20 years’ and ‘More than 21 years’. These results are presented below in Table 28.

*Table 28 The length of employment (in years) in higher education*

	N	%
5 years and less	99	14.5
6 to 10 years	191	27.9
11 to 20 years	259	37.9
More than 21 years	135	19.7
Total	684	100

In relation to the length of employment in the area of higher education, Table 28 indicates that the majority of the respondents (37.9%) have been working in higher education between 11 and 20 years, while a smaller proportion (27.9%) – between 6 to 10 years. As can be seen, smaller proportions of the respondents have been working in the area ‘5 years and less’ – 14.5% and, ‘more than 21 years’ – 19.7%.

The responses to the statements Q10.1-Q10.10 in question 10 of the questionnaire were compared across the four groups of the length of employment. As such, Table 29 below presents a cross tabulation between the length of employment and the extent of agreement/disagreement with that the level of classroom engagement has improved in recent years. Interestingly, the greatest disagreement with the improvement of classroom engagement by students was expressed by those respondents in the groups ‘More than 21 years’ – 42.9% and, ‘11 to 20 years’ – 40.7%. In turn, the group which was more unsure about if the level of classroom engagement has changed was those teaching 5 years and less. In total, just under 40% (3.1%) have selected the response option ‘neutral’ when answering to statement Q10.1. When reflecting on the levels of agreement with the statement, there was just a slight difference (difference in about 2%) in the proportion of respondents who have opted for the ‘somewhat agree’ – ‘strongly agree’ response options. Overall, the respondents who worked in the area of higher education between 6 to 10 years have expressed a slightly stronger agreement with the statement. Nevertheless, a Kruskal-Wallis test confirmed that the difference was not statistically significant. Overall, it can be noted that the response distribution across four groups of the length of employment was quite even either side of the scale.

Table 29 Cross tabulation between respondents' length of the employment in higher education and statement Q10.1

Q10.1: The level of classroom engagement by students has improved in recent years		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	2	8	11	32	19	11	1
	% of Row	2.4	9.5	13.1	38.1	22.6	13.1	1.2
	% of Total	.3	1.2	1.7	5	2.9	1.7	.2
6 to 10 years	Count	8	26	29	49	36	25	9
	% of Row	4.4	14.3	15.9	26.9	19.8	13.7	4.9
	% of Total	1.2	4	4.5	7.6	5.6	3.9	1.4
11 to 20 years	Count	29	30	43	56	46	36	11
	% of Row	11.6	12	17.1	22.3	18.3	14.3	4.4
	% of Total	4.5	4.7	6.7	8.7	7.1	5.6	1.7
More than 21 years	Count	14	21	20	27	18	24	4
	% of Row	10.9	16.4	15.6	21.1	14.1	18.8	3.1
	% of Total	2.2	3.3	3.1	4.2	2.8	3.7	.6

The second statement Q10.2 in question 10 have asked about respondents views on the increase/ decline in students attendance levels. The results of the distribution are presented as a cross tabulation between the length of employment and the extent of agreement/disagreement below in Table 30. Reflecting on the results a number of observations can be made. Firstly, there is a positive skew in the response distribution with the respondents expressing greater agreement than disagreement with the decline in student attendance levels. This is particularly evident for the respondents in the bands '11 to 20 years' and 'More than 21 years'. To note, the 57.9% of the respondents who stated having worked in higher education more than 21 years, agreed that students' attendance levels are declining, while only 30.1% in the same band disagreeing with the statement. Moreover, just over a half of those in the group '11 to 20 years' have chosen 'somewhat agree' – 'strongly agree' that student attendance levels are declining, while a quarter (25.2%) of the respondents in the same group have opted for 'somewhat disagree' – 'strongly disagree'. The more even response distribution across either side of the scale, was observed for the respondents in the '5 years and less' band. Overall, the difference in the responses for all four groups (in

regard to the length of employment in the area of higher education) was not statistically significant.

*Table 30 Cross tabulation between respondents' length of the employment in higher education and statement Q10.2*

Q10.2: Student attendance levels are declining		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	4	8	12	29	16	11	3
	% of Row	4.8	9.6	14.5	34.9	19.3	13.3	3.6
	% of Total	.6	1.2	1.9	4.5	2.5	1.7	.5
6 to 10 years	Count	5	22	27	39	28	46	14
	% of Row	2.8	12.2	14.9	21.5	15.5	25.4	7.7
	% of Total	.8	3.4	4.2	6.1	4.4	7.2	2.2
11 to 20 years	Count	12	29	22	57	49	54	28
	% of Row	4.8	11.6	8.8	22.7	19.5	21.5	11.2
	% of Total	1.9	4.5	3.4	8.9	7.6	8.4	4.4
More than 21 years	Count	10	15	13	15	24	31	18
	% of Row	7.9	11.9	10.3	11.9	19	24.6	14.3
	% of Total	1.6	2.3	2	2.3	3.7	4.8	2.8

Furthermore, Table 31 below presents a cross tabulation between respondents' length of employment and response to the statement 10.2. More specifically the statement explored the views of academic staff across eight higher education institutions in the Dublin region on whether increased diversity of the student population has had a positive impact on the classroom environment. As can be seen from the table the majority of the respondents across all four groups (in regard to their length of employment) have selected categories 'somewhat agree' – 'strongly agree'. However, there is a slightly greater agreement with the statement was observed for the respondents from the two groups: '11 to 20 years' – 58.6% and 'More than 21 years' - 58.8%. Interestingly, around one third of the respondents across all four groupings have opted for the category 'neutral', which could be indicative of respondents' uncertainty whether increased diversity of the student population has had a positive impact on the classroom learning environment. Nevertheless, the difference in the responses was not statistically significant (as confirmed by a Kruskal-Wallis test).



Table 31 Cross tabulation between respondents' length of the employment in higher education and statement Q10.3

Q10.3: Increased diversity of the student population has had a positive impact on the classroom learning environment		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	0	2	5	30	19	20	7
	% of Row	.	2.4	6	36.1	22.9	24.1	8.4
	% of Total	.	.3	.8	4.7	3	3.1	1.1
6 to 10 years	Count	2	6	15	56	42	43	16
	% of Row	1.1	3.3	8.3	31.1	23.3	23.9	8.9
	% of Total	.3	.9	2.3	8.8	6.6	6.7	2.5
11 to 20 years	Count	4	3	16	81	46	73	28
	% of Row	1.6	1.2	6.4	32.3	18.3	29.1	11.2
	% of Total	.6	.5	2.5	12.7	7.2	11.4	4.4
More than 21 years	Count	3	5	6	38	23	28	23
	% of Row	2.4	4	4.8	30.2	18.3	22.2	18.3
	% of Total	.5	.8	.9	5.9	3.6	4.4	3.6

In turn, reflecting on the results of cross tabulation between the length of employment and response to statement Q10.4 on whether the students are increasingly well prepared for third level learning displayed in Table 32 below, a few remarks can be made. Firstly, there is a negative skew in the response distribution, with the responses across all four groups are being clustered at the lower end of the scale. Secondly, there is a greater extent of disagreement expressed by the group 'More than 21 years. In total, just under 75% of respondents in this groups disagreed that students are increasingly well prepared for third level learning. In fact, the respondents the group with 5 years and less teaching experience in the area of higher education displayed lower levels of disagreement with the statement, with just one third (31.3%) opting for 'strongly disagree' or 'disagree' response options. A Kruskal-Wallis test revealed that the length of employment in years was a factor in participants' views on students' preparation for third level learning:  $\chi^2(3, n=645) = 9.08, p=.028$ .

Table 32 Cross tabulation between respondents' length of the employment in higher education and statement Q10.4

Q10.4: Students are increasingly well prepared for third level learning		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	6	20	25	22	8	2	0
	% of Row	7.2	24.1	30.1	26.5	9.6	2.4	.
	% of Total	.9	3.1	3.9	3.4	1.2	.3	.
6 to 10 years	Count	32	47	54	25	13	11	0
	% of Row	17.6	25.8	29.7	13.7	7.1	6	.
	% of Total	5	7.3	8.4	3.9	2	1.7	.
11 to 20 years	Count	52	76	54	44	16	7	3
	% of Row	20.6	30.2	21.4	17.5	6.3	2.8	1.2
	% of Total	8.1	11.8	8.4	6.8	2.5	1.1	.5
More than 21 years	Count	22	30	43	19	6	6	2
	% of Row	17.2	23.4	33.6	14.8	4.7	4.7	1.6
	% of Total	3.4	4.7	6.7	2.9	.9	.9	.3

The respondents' views have been explored in regard to general increase in group sizes. Table 33 below presents a cross tabulation between the length of respondents and their perception on increase in student group sizes.

Table 33 Cross tabulation between respondents' length of the employment in higher education and statement Q10.5

Q10.5: I am teaching increasingly larger group sizes		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	2	4	10	25	14	11	17
	% of Row	2.4	4.8	12	30.1	16.9	13.3	20.5
	% of Total	.3	.6	1.6	3.9	2.2	1.7	2.6
6 to 10 years	Count	1	16	18	36	31	38	41
	% of Row	.6	8.8	9.9	19.9	17.1	21	22.7
	% of Total	.2	2.5	2.8	5.6	4.8	5.9	6.4
11 to 20 years	Count	6	19	17	60	50	51	48
	% of Row	2.4	7.6	6.8	23.9	19.9	20.3	19.1
	% of Total	.9	3	2.6	9.3	7.8	7.9	7.5
More than 21 years	Count	4	8	7	30	20	28	31
	% of Row	3.1	6.3	5.5	23.4	15.6	21.9	24.2
	% of Total	.6	1.2	1.1	4.7	3.1	4.4	4.8

Reflecting on the results, it can be stated that there was a general agreement across all four groups of the respondents with the increase in student group sizes. The greater agreement was expressed by the respondents from two groups: ‘6 to 10 years’ and ‘More than 21 years’ (for the exact percentages please see Table 33).

Furthermore, a Kruskal-Wallis test established a statistically significant difference in the results distributions was found in response to statement Q10.6 (Table 34):  $\chi^2$  (3, n=644) = 8.149, p=.043. What it means is that the length of employment was a factor in how survey participants have answered the question. More specifically the statement explored the views in regard to respondents’ perceptions on their use of technology demanded by students. Reflecting on the results a few observations can be made. There was a general impression that the respondents defined themselves as quite competent and proficient users of the technology. Secondly, there was a slightly more positive response from the respondents in ‘6 to 10 years’ groups. To note, over a half of the respondents from the groups ‘6 to 10 years’ (57.4%) and ‘11 to 20 years’ (54.7%) have ‘strongly disagreed’ or ‘disagreed’ that they struggle to keep up with the use of technology demanded by students.

*Table 34 Cross tabulation between respondents’ length of the employment in higher education and statement Q10.6*

Q10.6: I struggle to keep up with the use of technology demanded by students		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	18	21	18	19	4	3	1
	% of Row	21.4	25	21.4	22.6	4.8	3.6	1.2
	% of Total	2.8	3.3	2.8	3	.6	.5	.2
6 to 10 years	Count	33	71	26	24	15	7	5
	% of Row	18.2	39.2	14.4	13.3	8.3	3.9	2.8
	% of Total	5.1	11	4	3.7	2.3	1.1	.8
11 to 20 years	Count	57	81	32	36	29	9	8
	% of Row	22.6	32.1	12.7	14.3	11.5	3.6	3.2
	% of Total	8.9	12.6	5	5.6	4.5	1.4	1.2
More than 21 years	Count	21	27	25	24	21	7	2
	% of Row	16.5	21.3	19.7	18.9	16.5	5.5	1.6
	% of Total	3.3	4.2	3.9	3.7	3.3	1.1	.3

To continue, Table 35 below presents a cross tabulation between respondents' length of employment and their perception of the demands placed by teaching. To note, the response distribution is quite symmetrical on either side of the scale. Reflecting on the results for individual groups of respondents, we can highlight that those in groups '5 years and less' and '6 to 10 years' seem to express a greater agreement with teaching is being more demanding than any other aspect of their academic activities. Just under a half of the respondents in these groups expressed some form of agreement (selecting categories 'somewhat agree' to 'strongly agree') with the statement. For those in '5 years and less' the figure was 46.4%, and for those in '6 to 10 years' it was 49.2%. Interestingly, only 36% of the respondents who worked in the area of higher education for more than 21 years expressed agreement with teaching being more demanding than any other aspect of their academic activities. Despite the differences in the responses across the four groups, a Kruskal-Wallis test did not confirm that the length of employment was a factor in how respondents answered the statement.

*Table 35 Cross tabulation between respondents' length of the employment in higher education and statement Q10.7*

Q10.7: Teaching is more demanding than any other aspect of my academic activities		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	4	20	8	13	18	15	6
	<i>% of Row</i>	4.8	23.8	9.5	15.5	21.4	17.9	7.1
	<i>% of Total</i>	.6	3.1	1.2	2	2.8	2.3	.9
6 to 10 years	Count	11	27	14	40	34	38	17
	<i>% of Row</i>	6.1	14.9	7.7	22.1	18.8	21	9.4
	<i>% of Total</i>	1.7	4.2	2.2	6.2	5.3	5.9	2.6
11 to 20 years	Count	17	50	45	43	34	39	24
	<i>% of Row</i>	6.7	19.8	17.9	17.1	13.5	15.5	9.5
	<i>% of Total</i>	2.6	7.8	7	6.7	5.3	6.1	3.7
More than 21 years	Count	13	24	21	22	13	24	8
	<i>% of Row</i>	10.4	19.2	16.8	17.6	10.4	19.2	6.4
	<i>% of Total</i>	2	3.7	3.3	3.4	2	3.7	1.2

Reflecting on the results distribution in response to statement Q10.8 a few remarks can be made. Over 80% of the respondents in all four groups agreed that their research informs their teaching. In fact, over 90% of respondents in the group '11 to

20 years’ agreed that their research informs their teaching (Please see Table 36 below). Nevertheless, a Kruskal-Wallis test did not confirm that there was a statistically significant in the responses across four groups of respondents.

*Table 36 Cross tabulation between respondents’ length of the employment in higher education and statement Q10.8*

Q10.8: My research informs my teaching		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	1	1	3	10	11	30	27
	<i>% of Row</i>	<i>1.2</i>	<i>1.2</i>	<i>3.6</i>	<i>12</i>	<i>13.3</i>	<i>36.1</i>	<i>32.5</i>
	<i>% of Total</i>	<i>.2</i>	<i>.2</i>	<i>.5</i>	<i>1.5</i>	<i>1.7</i>	<i>4.6</i>	<i>4.2</i>
6 to 10 years	Count	2	1	6	13	30	73	57
	<i>% of Row</i>	<i>1.1</i>	<i>.5</i>	<i>3.3</i>	<i>7.1</i>	<i>16.5</i>	<i>40.1</i>	<i>31.3</i>
	<i>% of Total</i>	<i>.3</i>	<i>.2</i>	<i>.9</i>	<i>2</i>	<i>4.6</i>	<i>11.3</i>	<i>8.8</i>
11 to 20 years	Count	3	1	6	15	50	84	94
	<i>% of Row</i>	<i>1.2</i>	<i>.4</i>	<i>2.4</i>	<i>5.9</i>	<i>19.8</i>	<i>33.2</i>	<i>37.2</i>
	<i>% of Total</i>	<i>.5</i>	<i>.2</i>	<i>.9</i>	<i>2.3</i>	<i>7.7</i>	<i>13</i>	<i>14.6</i>
More than 21 years	Count	1	1	7	8	23	48	40
	<i>% of Row</i>	<i>.8</i>	<i>.8</i>	<i>5.5</i>	<i>6.3</i>	<i>18</i>	<i>37.5</i>	<i>31.3</i>
	<i>% of Total</i>	<i>.2</i>	<i>.2</i>	<i>1.1</i>	<i>1.2</i>	<i>3.6</i>	<i>7.4</i>	<i>6.2</i>

The response to the statement Q10.9 which specifically explored if teaching is being a source of job satisfaction for the respondents (please see Table 37). There was a positive distribution in the responses across all four groups. In fact, over 90% of the respondents in three groups expressed agreement that teaching was a source of job satisfaction for them. Similarly up to 90% of the respondents who were teaching 5 years and less expressed agreement (selecting categories ‘somewhat agree’ – ‘strongly agree’) with the statement Q10.9 and 76.2% have ‘agreed’ or ‘strongly agreed’. A Kruskal-Wallis tests did not confirm that there was a statistically significant difference in the responses across the four groups.

Table 37 Cross tabulation between respondents' length of the employment in higher education and statement Q10.9

Q10.9: Teaching is a source of job satisfaction for me		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	0	0	1	8	11	29	35
	% of Row	.	.	1.2	9.5	13.1	34.5	41.7
	% of Total	.	.	.2	1.2	1.7	4.5	5.4
6 to 10 years	Count	1	0	2	11	23	77	68
	% of Row	.5	.	1.1	6	12.6	42.3	37.4
	% of Total	.2	.	.3	1.7	3.6	11.9	10.5
11 to 20 years	Count	3	3	3	14	24	99	107
	% of Row	1.2	1.2	1.2	5.5	9.5	39.1	42.3
	% of Total	.5	.5	.5	2.2	3.7	15.3	16.5
More than 21 years	Count	1	0	1	5	12	49	60
	% of Row	.8	.	.8	3.9	9.4	38.3	46.9
	% of Total	.2	.	.2	.8	1.9	7.6	9.3

The last statement of question 10 has specifically explored whether student evaluation of teaching provides respondents' with useful feedback. The results of the distribution are presented in Table 38 below.

Table 38 Cross tabulation between respondents' length of the employment in higher education and statement Q10.10

Q10.10: Student evaluation of my teaching provides me with useful feedback		SD	D	SmD	Neutr	SmA	A	SA
5 years and less	Count	0	1	0	15	11	29	28
	% of Row	.	1.2	.	17.9	13.1	34.5	33.3
	% of Total	.	.2	.	2.3	1.7	4.5	4.3
6 to 10 years	Count	3	8	4	18	35	74	39
	% of Row	1.7	4.4	2.2	9.9	19.3	40.9	21.5
	% of Total	.5	1.2	.6	2.8	5.4	11.5	6
11 to 20 years	Count	4	14	7	17	50	93	68
	% of Row	1.6	5.5	2.8	6.7	19.8	36.8	26.9
	% of Total	.6	2.2	1.1	2.6	7.7	14.4	10.5
More than 21 years	Count	3	2	2	14	31	44	32
	% of Row	2.3	1.6	1.6	10.9	24.2	34.4	25
	% of Total	.5	.3	.3	2.2	4.8	6.8	5

A few remarks can be made about the findings. Firstly, there was a quite a positive skew toward the upper end of the scale with the majority of respondents expressing agreement that student evaluation provides them with useful feedback. Overall, the respondents from two groups who were teaching the longest in the area of higher education have expressed a slightly greater agreement with the statement. More specifically, 83.5% from '11 to 20 years' band have opted for 'somewhat agree' – 'strongly agree' and 83.6% from 'More than 21 years' band have opted for 'somewhat agree' to 'strongly agree' response options. Nevertheless, over 80% of the respondents from all four groups expressed agreement with the statement. A Kruskal-Wallis test did not confirm that the length of employment was a factor in how the survey participants responded to statement Q10.10.

## 1.7 Summary

The section above provided a descriptive overview of the survey results "*The voice of Irish academics: towards a professional development strategy*" in relation to the changing nature of teaching and learning. In particular, the section presented the response distribution to ten statements of question 10 of the questionnaire. The views of the lecturing staff across eight higher education institutions in the Dublin region have been presented in the following areas: perception of students' preparedness for third level, level of classroom engagement, student attendance levels, changes in the diversity of student population, the general increase / decrease in group sizes, the extent to which research informs teaching and the extent to which teaching is a source of job satisfaction to the respondents. Moreover, for comparative purposes the views of the respondents from four universities and four Institutes of Technology have been compared. Then the data was additionally analysed with regard to respondents' level of engagement with professional development.

- In regard to the response distribution on aspects of teaching in higher education, explored through statement of question 10 the findings are:

1) There was quite an even response in regard to extent of agreement / disagreement expressed in regard improvement of level of classroom engagement by students in recent years - 37.1% expressed agreement, while 37.2% expressed disagreement. In

regard to the respondents' perceptions of the demands placed by teaching - 42.3% stated general agreement with this statement (from 'somewhat agree' to 'strongly agree'), while 39.3% has expressed general disagreement (from 'somewhat disagree' to 'strongly disagree').

2) There was quite a positive response to seven items of question 10. Overall, over a half (50.2%) of the respondents stated agreement with that student attendance levels are declining. In total, 58.8% expressed some level of agreement ('somewhat agree' – 'strongly agree') with the statement on teaching increasingly larger group sizes. Also, 57.7% expressed some agreement with that increased diversity of the student population has had a positive impact on the classroom environment. Importantly, 82.9% stated some form of agreement with that student evaluation with my teaching provides me with useful feedback. Furthermore, it should be highlighted that 87.6% of the survey respondents expressed agreement with that their research informs their teaching. Significantly, 91.9% indicated a being satisfied with teaching aspect of their academic responsibilities. Additionally, a majority of the respondents indicated being well prepared to use the technology ion the teaching and learning.

3) There was quite a negative response to one statement of question 10 in regard to changing nature of teaching in higher education, with 44.1% of the respondents 'disagreed' or 'strongly disagree' that students are being well prepared for third level learning. Furthermore 27.3% of the respondents have selected 'somewhat disagree'.

- In regard to the views on changing nature of teaching and learning across Universities and Institutes of Technology (IoTs) the following points can be highlighted:

1) Overall, the respondents from universities have been more somewhat more positive than the respondents from IoTs in response to the following statements:

- improvement in the levels of classroom engagement by students in recent years;
- students are increasingly well prepared for third level learning;
- teaching increasingly larger group sizes;
- my research informs my teaching.

Additionally, teaching was perceived to be more demanding by the respondents from IoTs than by those from universities.

2) Similar extent of agreement / disagreement was observed in regard to the following statements:

- increased diversity of the student population has had a positive impact on the classroom learning environment;
- student evaluation of my teaching provides me with useful feedback.



3) The statistically significant differences between the respondents from two groups were found in response to the statements:

- improvement in the levels of classroom engagement by students in recent years;
- my research informs my teaching.

4) The majority of the respondents from both groups have had a positive image of themselves as competent and proficient users of technology. And it was evident that for the majority of the respondents from both groups teaching appears to be a source of job satisfaction.

- In regard to the views on changing nature of teaching and learning across different posts of responsibility (levels of seniority) of lecturing staff the following points can be highlighted:

1) Overall, the responses for all three groups ('Professor, Associate Professor and Senior lecturer', 'Lecturer, Junior/Associate lecturer' and 'Researcher') were quite equally distributed in terms of extent of either agreement or disagreement:

- The level of classroom engagement by students has improved in recent years;
- Students are increasingly well prepared for third level learning;
- I struggle to keep up with the use of technology demanded by students (To note, there is a positive skew in the distribution across the response categories for three groups of respondents);
- Teaching is a source of job satisfaction for me

To note, the results in regard to the levels of agreement/disagreement that students are increasingly well prepared for third level learning, it was evident that the majority of the respondents in all three categories disagreed with the statement

2) A Kruskal-Wallis test confirmed that level of seniority was a factor in respondents' views in regard to:

- Student attendance levels are declining;
- I am teaching increasingly larger group sizes;
- Teaching is more demanding than any other aspect of my academic activities;
- My research informs my teaching.

- In regard to the views on changing nature of teaching and learning according to the primary academic discipline (Social Sciences and Humanities, Science and Technology and Medical and Health Sciences) the following points can be highlighted:

1) A Kruskal-Wallis test confirmed that level of seniority was a factor in respondents' views in regard to:

- Student attendance levels are declining;
- Increased diversity of the student population has had a positive impact on the classroom learning environment;
- I am teaching increasingly larger group sizes;
- My research informs my teaching;
- Teaching is a source of job satisfaction for me.

2) Similar extent of agreement / disagreement was observed in regard to the following statements:

- teaching is more demanding than any other aspect of my academic activities
  - In regard to the views on changing nature of teaching and learning according to the length of employment in higher education ('5 years and less', '6 to 10 years', '11 to 20 years' and 'More than 21 years') the following points can be highlighted:

1) A Kruskal-Wallis test confirmed that level of seniority was a factor in respondents' views in regard to:

- students are increasingly well prepared for third level learning;
- I struggle to keep up with the use of technology demanded by students.

2) There was quite a positive response across all four groups of respondents to the three statements of question 10 in regard to changing nature of teaching in higher education, with over 80% of the respondents expressing agreement ('somewhat agree' – 'strongly agree') with:

- my research informs their teaching learning;
- teaching is a source of job satisfaction for me;
- student evaluation provides me with useful feedback.