## PRACTICE BRIEF: Examination Accommodations for Students with Sensory Defensiveness

# Kieran Lewis Clodagh Nolan University of Dublin, Trinity College

#### **Abstract**

Traditional examination accommodations include extra time, scribes, and/or separate venues for students with disabilities, which have been proven to be successful for the majority of students. For students with non-apparent disabilities such as sensory defensiveness, where sensitivity to a range of sensory information from the environment can severely limit one's ability to engage in activities, accommodations such as those advocated above may not prove effective in removing barriers and promoting fairness and equity in examinations. A pilot study was undertaken by the Unilink and the Disability Services within Trinity College, Dublin to explore the difficulties encountered by students experiencing sensory defensiveness and to examine the efficacy of the provision of low distraction examination venues for this population. The Unilink Service is a college-based Occupational Therapy support service for students experiencing mental health and/or physical sensory difficulties (Nolan & MacCobb, 2006; Nolan, Quinn & MacCobb, 2011). The aim of the service is to support students in their college journey, to enable them to engage in their student role, and to complete their studies throughout their college career. A three phased descriptive non-experimental approach was taken within this pilot study using questionnaires and audits. Findings indicated that a significant proportion of the students availing of traditional examination accommodations were experiencing difficulties with auditory and visual distractions. Evidence supported the findings that the provision of low distraction examination venues enabled students experiencing sensory defensiveness to better participate in their examinations and that the low distraction venues were appropriate to their needs.

Keywords: Postsecondary education, examination accommodations, sensory defensiveness

Examination accommodations such as additional time and alternative formats are some of the most common accommodations used by students with disabilities within school or college (Barnard-Brak, Sulak, Tate, & Lechtenberger, 2010; Ketterlin-Greller, Alonzo, Braun-Monegan, & Tindal, 2007). These accommodations have proved successful for students with some nonapparent disabilities such as dyslexia (Gregg, 2009; Gregg & Nelson, 2010) but may have limited usefulness for those with other non-apparent disabilities such as sensory defensiveness or sensory over-responsivity, which can be experienced by students with Attention Deficit /Hyperactivity Disorder (ADHD), Asperger's Syndrome (AS), and Developmental Co-Ordination Disorder (DCD) (also known as Dyspraxia) as well as some mental health difficulties (Blakemore et al, 2006;

Brown, Cromwell, Filion, Dunn, & Tollefson, 2002; Lane, Reynolds, & Thacker, 2007; & Parush, Sohmer, Steinberg, & Kaitz, 2007). Gregg (2009) maintains that test setting accommodations such as a private or quiet room or a smaller group setting are often recommended by professionals, but there appears to be little evidence to support their effectiveness. The purpose of this article is to expand and evaluate the concept of environmental accommodations appropriate to students with sensory defensiveness within higher education.

#### **Sensory Processing and Sensory Defensiveness**

Sensory processing is the means by which we take in information about the environments around us through our senses. However, some individuals can be so hyper-responsive or so hypo-responsive that

their sensory processing interferes with their ability to engage in their daily activities (Brown & Nicholson, 2011). Dunn (1999) suggests that people with atypical sensory processing may display exceedingly high or low thresholds for sensory information. Such individuals require either more sensory information or much less than others; therefore, the ability to attend and focus on the task at hand is affected. Consequently, they are either under-responsive or over-responsive to sensory input or environmental stimuli.

Sensory defensiveness is where a student's neurological system has a very low threshold for sensory information and can be overly sensitive (hyper-responsive) to sensory stimuli which can be triggered by virtually everything in the environment. Pfeiffer and Kinnealey (2003) claim that sensory defensiveness is a negative reaction to certain sensory inputs, which can elicit avoidance, increased arousal, fight-or-flight behaviours, and extreme reactions in response to sensory stimuli such as touch, loud noises, or bright lights. Responses to stimuli tend to be more intense if they are unexpected by the individual. Sensory input can often have a summative effect, which is that prolonged exposure to uncomfortable sensory stimuli can lead to an exaggerated response to a seemingly ordinary event (Miller, Anzalone, Lane, Cermak, & Olsten, 2007). Adults with sensory defensiveness have been found in several studies to report higher levels of anxiety and depression (Engel-Yeger & Dunn, 2011; Kinneally & Fuiek, 1999). Students with sensory defensiveness can become over-loaded by sensory stimuli (e.g., sound, light, touch, smells, and movement), which can impact upon their completing everyday academic and non-academic tasks in college. Environments such as lecture halls, restaurants, libraries, and examination venues can be overwhelming, leading students to avoid these environments and preventing them from fully engaging in their daily tasks (Johnson & Irving, 2008).

Individuals often develop coping strategies that involve avoidance of activities and environments that provide too much sensory input, which can greatly limit their choice of career, interpersonal relationships, leisure pursuits, and overall participation in daily life (Abernethy, 2010; Kinnealey, Oliver, & Wilbarger, 1995; Pfeiffer, 2002). Students with sensory defensiveness may experience difficulty in filtering out various sensory stimuli from their environment. As a result, many of these students choose to study at home or in low distraction environments and may experience

great difficulty in maintaining concentration in the examination environment.

#### **Test Setting Accommodations**

Providing test accommodations for students with disabilities is designed to promote fairness in testing and to promote validity by removing construct-irrelevant barriers (Sireci & Pitoniak, 2006). For the majority of students with disabilities, the provision of extra time in examinations is a very effective form of reasonable accommodation offered in higher education institutes. However, for students with sensory defensiveness, the provision of extra time alone was hypothesised as not being enough for them to engage and complete their examinations satisfactorily. A survey (TCD, 2011) was carried out within the Trinity College, Dublin by the Disability Service, which enabled staff to examine the provision of appropriate test setting accommodations for this group of students. A second follow up study traced students that had identified sensory sensitivity as a problem (n=8).

#### Context

The number of students registered with the Disability Service in Trinity College Dublin with AS, ADHD, and DCD has increased greatly over a four year period from 2008 to 2012 as illustrated in Table 1. A significant proportion of these students reported difficulties in modulating sensory information in venues such as libraries, lecture halls, and examination venues. The Occupational Therapists within the Unilink Service began to examine the environments that the students were functioning within, to ascertain if adaptation of these environments could facilitate better participation in their day-to-day activities.

#### **Research Design and Method**

A descriptive non-experimental design that was predominantly quantitative was used in this research. The research was carried out over three phases within Trinity College, Dublin from February 2011 to June 2012 (Figure 1).

#### Phase I – Questionnaire Design and Distribution

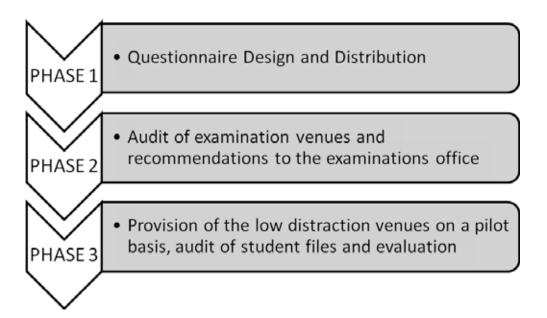
The study aimed to examine and enhance the examination environments for students experiencing sensory defensiveness. In order to meet this aim a questionnaire (see Appendix A) was sent in February 2011 to all students who were availing of examination

Table 1

Numbers of Students with AS, ADHD and DCD registering with the Disability Service in Trinity College Dublin in the period 2008-2012.

ADHD     18     20     37     50       AS     18     22     29     39       DCD     2     9     8     26	Academic Year	2008-09	09-10	10-11	11-12
	ADHD	18	20	37	50
DCD 2 9 8 26	AS	18	22	29	39
	DCD	2	9	8	26

Figure 1. Three Phases of the Research Design.



accommodations through the Disability Service in Trinity College Dublin (n=371). All surveys designed and utilised within the Disability Service meet the accessible information guidelines used within Trinity College. The purpose of the questionnaire was to examine the experiences of students with disabilities of taking examinations in Trinity College. Forsyth and Kviz (2006) suggest that the initial step in building the questionnaire is to identify the key variables to be measured. This questionnaire was designed specifically for this study using a focus group made up of Occu-

pational Therapists and Disability Officers who had expertise in working with students with non-apparent disabilities. This group formulated the questions to be used in the questionnaire, which centred upon student feedback on examination accommodations and on rating examination venues. In order to ensure face validity, this questionnaire was piloted with three students. Feedback from the students was incorporated into the questionnaire design. For example, the question related to noise was broken down into noise from within or outside the venue. The survey was designed using

a mixture of likert scales and open-ended questions, which allowed students to expand upon their answers. SurveyMonkeyTM software (www.surveymonkey.com) was used to distribute the questionnaires.

#### Results

A total of 102 (27% response rate) students completed the questionnaire. The majority of students with disabilities had used multiple venues and had found them to be excellent. Of the 102 respondents, 87 had taken examinations in the main test centre. This centre contains group venues catering for a maximum of 60 students as well as individual venues. A majority, 87.3% (n=76), described the venues as being excellent to good. While the feedback from the majority of students was positive, results indicated that the experience of some students (n=34) was very different from the majority. This group of respondents rated the venues as poor or unacceptable. Students were asked to comment on their experiences during the examination. Table 2 illustrates some of the comments made by students.

These comments would suggest that some students were experiencing difficulty processing sensory stimuli during the examination period and within the venues. Based upon these findings and the difficulties that these students reported in meetings with Disability Service and Unilink staff, and upon a literature search in the areas of Attention Deficit / Hyperactivity Disorder, Asperger's Syndrome and sensory defensiveness, the authors hypothesised that providing extra time within a group venue of 30-60 students (Figure 2) would not be providing the most effective accommodation for this group of students.

## Phase 2 - Audit of Examination Venues and Recommendations to the Examinations Office

As a result of these findings, the literature review, and the experience of two Occupational Therapists working with students experiencing sensory defensiveness and who had completed postgraduate education in Sensory Integration, an audit of the main examination venues used for students with disabilities receiving examination accommodations was conducted in March 2011. This audit examined the venues under the following headings: room capacity/proximity of students to each other, auditory distractions (within and outside the venue), and visual distractions. The findings of this audit indicated that, out of 16 rooms within the main

test centre, there were auditory, visual, and proximity issues in most of the venues. Figure 3 illustrates the types of difficulties students encountered.

Following this audit and the difficulties identified from the questionnaire in Phase 1 (Table 2), recommendations were made to the Examinations Office for the establishment of low-distraction venues on a pilot basis. Criteria were established for choosing venues (see Table 3) and recommendations were made for the set up of the venues (see Table 4).

### Phase 3 - Provision of the Low Distraction Venues on a Pilot Basis, Audit of Student Files and Evaluation

As a result of the recommendations, two venues were established (one with four seats and one with three seats) as well as two individual venues for students using computers who also required test setting accommodations (Figure 4). These venues were located in an area of the examination centre where the least number of offices were located.

As part of Phase 3, a further audit of student files of those who were attending the Unilink Service was undertaken to identify students who had reported sensory sensitivity or high levels of distraction. The purpose of this second audit was to identify students and to offer them an assessment using the Adolescent / Adult Sensory Profile (AASP) (Brown & Dunn, 2002). The AASP is a 60 item self-report questionnaire in which the individual is asked questions in relation to how he/ she generally responds to sensory information. The aim of the profile is to provide valuable information about an individual's sensory processing and to enable more informed intervention planning (Brown & Dunn, 2002). The development of the AASP involved the evaluation of item face validity, reliability, construct validity, and revisions to ensure that the instrument was understandable by the relevant age group (Rieke & Anderson, 2009).

Eight students were identified during this audit process and were offered the opportunity to work collaboratively with the Unilink Staff in learning more about sensory defensiveness and its impact upon their student role. They explored and developed strategies to manage sensory defensiveness within college and to ensure that the venues were appropriate to their individual sensory preferences. The students were involved in the design of the low-distraction test setting in terms of lighting, space between desks, and levels of auditory distraction. Students were also given an

### Difficulties Most Frequently Reported by Students with Disabilities

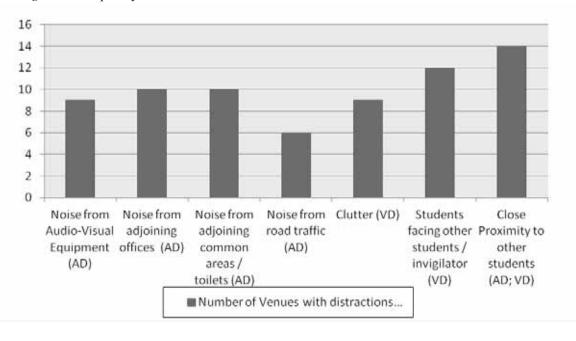
Difficulties experienced most frequently were:

- Noise [within and outside the reasonable accommodation venues].
- Distractions [other students, overcrowding, examinations ending at different times, invigilator (also known as proctor) announcements].
- Temperature [very cold at end of the first term examinations].
- Students with ADHD expressed the view that the high level of people coming and going from the venue caused distraction.
- Students with DCD (Dyspraxia) experienced sensory difficulties with noise, temperature and light.

Figure 2. Example of a Group Venue



Figure 3. Frequency of Distractions within the 16 Audited Venues



#### Table 3

#### Criteria for Room Selection

#### Room Selection Criteria:

- Examination rooms to be located away from main road side the building to reduce noise from traffic.
- Examination rooms to have concrete walls and doubled glazed windows for increased sound proofing.
- Examination rooms to be located away from departmental offices, toilets, lockers, stairwells, and common seating areas.
- Examination venues to be well ventilated so that windows or doors do not have to be opened during examinations.
- Students using a computer but who also require test setting accommodations should have an individual venue.

#### Table 4

Recommendations for the Setup of Low Distraction Venues

#### Room Set Up Recommendations:

- Number of students within the venue to be restricted to allow extra space between desks.
- Desks should be placed facing the wall within smaller venues. Desks should be placed against blank walls.
- All unnecessary materials should be placed outside the room for the duration of the examination. These include boxes, audio/visual equipment, unused chairs and tables, etc.
- Blinds should be used in examination rooms to control the amount of natural light.
- All computers and audio-visual equipment must be switched off in the room.
- Invigilators (also known as proctors) to be made aware of the need to reduce auditory distractions such as newspapers, laptops, eating, etc.
- If there are a number of students sitting their examinations within one room, it is essential that auditory distractions, such as moving about in chairs and people entering and exiting the venue, are kept to a minimum so as not to distract the other students.
- Cleaning staff / Director of Buildings should be informed of the different examination venues, dates, and times of examinations in order to avoid unnecessary external noise.
- Earplugs or noise-cancelling earphones to be provided within the room.

Figure 4. The Four Seat Low Distraction Venue







opportunity to visit the venue in the weeks leading up to the examination and mock examinations were run in these venues to help them become accustomed to the testing environment.

#### **Evaluation of the Pilot Test Setting Accommodations**

The low distraction venues were piloted during the annual examination period from May to June 2011. Staff from the Unilink Service and the Disability Service observed the venues, invigilators (also known as proctors) were asked to complete a questionnaire (see Appendix B) after each examination, and students were asked for feedback by email following the examination period (see Appendix C). This questionnaire was again designed specifically for this study using a focus group made up of Occupational Therapists and Disability Officers who had expertise in working with students with non-apparent disabilities within the college context. Findings from the invigilators indicated that the low distraction venues were appropriate for the students' needs. Table 5 indicates the mode number of times the invigilators rated the environment as acceptable and the number of distractions that they perceived to be present within the venues.

Students were asked for feedback on their experiences of the low-distraction examination venues via a questionnaire. Five out eight students responded to this questionnaire. Students indicated that the low-distraction venues were "perfect," with one student commenting that "It was great as it really helped minimise distraction levels and it was easier for me to concentrate." Another commented in relation to the

set up of the room that, "Definitely the desk facing the wall, as there was nothing to distract you from your exam." All found that there was adequate space between the desks to minimise distractions. Two out of the five students used earplugs during the examination so that "the noise did not really matter." All students found the lighting to be appropriate to their needs. One student commented that it was an "excellent service, and really helped me to relax into the exams."

#### Limitations

This study was carried out on a pilot basis within one University setting based upon eight students' use of the low-distraction venues. Comparisons were not made with the students' academic performance and these variables may be considered in future studies. Apart from the Adult/Adolescent Sensory profile (Brown & Dunn, 2002), the assessments/questionnaire used within this study were designed specifically for this research. These results cannot be generalised for all students with sensory processing difficulties. However, they may provide an alternative approach to examining such issues.

#### Conclusion

The findings of this pilot study indicate that when low-distraction venues are provided for students with sensory defensiveness, they can have a positive effect on levels of concentration and their ability to participate in annual examinations. These findings support

Table 5

Invigilator Ratings of Venues within Main Test Centre

	Low-Distraction (Mode Scale 1-5)	Group (Mode Scale 1-5)	Individual (Mode Scale 1-5)
Physical Environment Rating (1=unacceptable; 5=excellent)	5	4	4
Level of Distractions Rating (1=large number of distractions; 5=no distractions)	4	4	4

the use of test setting accommodations such as a private/quiet room or smaller group venues as highlighted by Gregg (2009). This study also lends support to the modification of environments for students experiencing sensory defensiveness, by removing unnecessary barriers and making adaptations to environments such as lecture halls, restaurants, busy concourses, and libraries as advocated by Johnson and Irving (2008) and May-Benson and Koomar (2008). The transition to the college environment presents challenges for all students but especially to students with sensory defensiveness, who may experience difficulty functioning within these new environments. Although sensory defensiveness and sensory processing are linked to the individual, sensory integrative theory can provide therapists and other professionals with an alternative perspective on facilitating student engagement in their academic activities. In line with Dunn's (1999) model of sensory processing, this study does not propose an approach that seeks to change the student's threshold for dealing with sensory information but to create an environment in which the student with sensory defensiveness can function.

This pilot study was undertaken as a result of an identified need amongst students with disabilities who were accessing the Unilink Service. It highlights the need to recognise and assess sensory defensiveness in the student and use appropriate accommodations to help these students engage in their student role. It also highlights the need for advocacy on behalf of students with the college administration and to raise awareness of the functional limitations encountered by people experiencing sensory defensiveness. As a result of this study, the number of students who use the low distraction venues has increased by 190% from eight in the annual examinations in 2011 to 29 in 2012.

We have proposed one method of reasonably accommodating students who experience sensory defensiveness within the college environment. Future research should investigate the prevalence of sensory defensiveness both within specific groups of college students with ADHD, Asperger's Syndrome and DCD and also with the overall student population. Other possible research could focus upon the types of environments within colleges in which students with sensory defensiveness experience difficulty functioning, guiding the planning of college buildings as well as the development of other reasonable accommodations.

### References

- Abernethy, H. (2010). The assessment and treatment of sensory defensiveness in adult mental health: A literature review. *British Journal of Occupational Therapy*, 73(5), 210-218.
- Blakemore, S. J. Tavassolli, T., Calo, S., Thomas, R. M. Catmir, C., Frith, U., & Haggard, P. (2006). Tactile sensitivity in Asperger syndrome. *Brain and Cognition*, 61, 5-13.
- Barnard-Brak, L., Sulak, T., Tate, A., & Lechtenberger, D. (2010). Measuring college students' attitudes toward requesting accommodations: A national multi-institutional study. *Assessment for Effective Intervention*, 35(3), 141-147.
- Brown, C., Cromwell, R. L., Filion, D, Dunn, W., & Tollefson, N. (2002). Sensory processing in schizophrenia: Missing and avoiding information. *Schizophrenia Research*, *55*(1-2), 187-195.
- Brown, C., & Dunn, W. (2002) *Adult/adolescent sensory profile: User's manual.* San Antonio, TX: Psychological Corporation.
- Brown, C., & Nicholson, R. (2011). Sensory skills. In Brown, C & Stoffel, V. (Eds.) *Occupational therapy in mental health: A vision for participation* (pp.280-297). Philadelphia, PA: FA Davis.
- Dunn, W. (1999). *The sensory profile*. San Antonio, TX: Psychological Corp.
- Engel-Yeger, B., & Dunn, W. (2011) The relationship between sensory processing difficulties and anxiety level of healthy adults. *British Journal of Occupational Therapy*, 74(5), 210-216.
- Forsyth, K., & Kviz, F. (2006) Survey research design. In Kielhofner, G. (ed.). *Research in occupational therapy: Methods of inquiry for enhancement of practice* (pp.607-619). Philadelphia, PA: FA Davis.
- Gregg, N. (2009) Adolescents and adults with learning disabilities and ADHD: Assessment and accommodation. New York: Guilford Press.
- Gregg, N., & Nelson, J. M., (2010). Meta-analysis on the effectiveness of extra time as a test accommodation for transitioning adolescents with learning disabilities: More questions than answers. *Journal of Learning Disabilities*, 45(2), 128-138. doi:10.1177/0022219409355484
- Johnson, M. E., & Irving, R. (2008). Implications of sensory defensiveness in a college population. Sensory Integration Quarterly / American Occupational Therapy Association, 31(2), 1-3.

- Ketterlin-Geller, L. R., Alonzo, J., Braun-Monegan, J., & Tindal, G. (2007). Recommendations for accommodations, implications of (in) consistency. Remedial and Special Education, 28(4), 194-206.
- Kinnealey, M., Oliver, B., & Wilbarger, P. (1995) A phenomenological study of sensory defensiveness in adults. American Journal of Occupational *Therapy*, 49(5), 444-51
- Kinnealey, M., & Fuiek, M. (1999). The relationship between sensory defensiveness, anxiety, depression, and the perception of pain in adults. Occupational Therapy International, 6, 195-296.
- Lane, S. J., Reynolds, S., & Thacker, L. (2010) Sensory over-responsivity and ADHD: Differentiating using electrodermal responses, cortisol, and anxiety. Frontiers in Integrative Neuroscience 4, 1-11.
- May-Benson, T., & Koomar, J.A. (2008) AOTA's centennial vision and the sensory integration frame of reference. Sensory Integration Special Interest Quarterly / American Occupational Therapy *Association, 31*(1), 1-4.
- Miller, L. J., Anzalone, M. E., Lane, S. J., Cermak, S. A., Osten, E. T. (2007) Concept Evolution in Sensory Integration: A Proposed Nosology for Diagnosis. American Journal of Occupational Therapy, 61(2), 135-140.
- Nolan, C., & MacCobb, S. (2006). Uni-Link: A mental health service initiative for university students. WFOT Bulletin, 54, 53-59.
- Nolan, C., Quinn, S., & MacCobb, S. (2011). The use of mobile phone technology, in particular text messaging, as a means of maintaining communication and developing relationships with third level students in the provision of a mental health service. Occupational Therapy in Mental Health, 27(2), 2011, 103-125.
- Parush, S., Sohmer, H., Steinberg, A., Kaitz, M. (2007). Somatosensory function in boys with ADHD and tactile defensiveness. Physiology & Behaviour, 90, 553–558.
- Pfeiffer B. (2002). The impact of dysfunction in sensory integration on occupations in childhood through adulthood: A case study. Sensory Integration Special Interest Section Quarterly, 25(1), 1-2.
- Pfeiffer, B., & Kinnealey (2003) Treatment of sensory defensiveness in adults. Occupational Therapy International, 10(3), 175-184.
- Rieke, E. F., & Anderson, D. (2009) Adolescent/adult sensory profile and obsessive-compulsive disorder. American Journal of Occupational Therapy, 63(2), 138-145.

- Sireci, S., & Pitoniak, M. (2006). Assessment accommodations. What have we learned from research? Paper presented at workshop of Accommodating Students with Disabilities on State Assessment: What Works? Savannah, GA. Retrieved from www.ets.org/Media/Research/ conf accomm2006 sireci.ppt
- SurveyMonkeyTM. http://www.surveymonkey. com/s/
- Trinity College Disability Service (2011) Report on Disability Service Exam Survey, February 2011 (unpublished) http://www.tcd.ie/disability/ projects/archived%20projects/Lowdistract.php

### **About the Authors**

Kieran Lewis received his B.Sc. degree in Occupational Therapy from Trinity College Dublin. He is currently working within the Unilink Service, part of the Disability Service in Trinity College, which is a practical support service for students who may be experiencing mental health difficulties and/or physical and sensory difficulties. He has completed modules one and two of the Advanced Practitioner Training Route in Sensory Integration offered by the Sensory Integration Network UK and Ireland. He is currently undertaking a M.Sc. by research in Occupational Therapy. His research interests include Sensory Processing Disorder in adults, recovery-orientated practice and self-management approaches. He can be reached by email at: klewis@tcd.ie

Dr. Clodagh Nolan qualified in the early 1980's with a Diploma in Occupational Therapy from the College of Occupational Therapists, London. Her Master's Degree and Ph.D. studies were in the area of community mental health and the development of a self-report measure for students with disabilities. She has taught at both undergraduate and postgraduate levels within the Discipline. She is currently an Assistant Professor with the Discipline of Occupational Therapy and Director of the Unilink Service at Trinity College, Dublin, Ireland. Her research interests include fatigue management, students and mental health, community engagement, attitudes to community mental health, and transitioning into and from college for students with disabilities. She can be reached by email at: nolancl@tcd.ie

# Appendix A Phase 1 - Questionnaire

Examination venue survey
1. Your chance to tell us all about exams
We are completing a review of examination venues. This is your opportunity to alert us to any issues you have experienced with quality of venue and / or invigilators.
*1. Which year are you in?
○ JF
○ SF
O 18
ss
PG
*2. Please indicate the disability category that applies to you. You may select more
than one.
ADHD
AS
Dyspraxia
Medical
Mental Health
Sensory (hearing)
Sensory (visual)
Specific learning difficulty
2.
*1. Which of these exam accommodations have you been granted.
Extra time
Sticker
Reader
Scribe
Computer
Other
Other (please specify)
·

# Appendix A Phase 1 - Questionnaire

Examination ver	nue survey				
2. Which of these	venues do yo	u / have you	used?		3000 U 0000000 0 5 4 0 0 0 0 0 0 0 0 0 0 0 0 0
Smaller group venue					
Individual venue					
None					
<b>3</b> ,					
*1. Please descri	be your expe	rience of the	following venues	:	
	Excellent	Good (minor problems)	Fair (could be better)	Poor	Unacceptable
Arts Building		problems)			
Luce Hall					
GMB					· 🗌
Exam Hall					
Computer room					
Please describe any difficultie	s you have had				
					<u>*</u>
		*			189
					U.S.
					. :

# Appendix A Phase 1 - Questionnaire

Examination ven	ue survey		SECTION 1	100				
*2. Please describe your experiences of the following during exams:								
	Excellent	Good (minor	Fair (could be better)	Poor	Unacceptable			
Invigilator Fellow students (in room) Fellow students (outside) Noise level (room) Noise level (outside room) Lighting Other		problems)	Fair (could be better)	Poor	Unacceptable			
Please describe any difficulties	you have had							
4. Thank you for y	ethods of all	ternative ass	essment would y					
exams? You may se	elect more th	ian one optio	n.					
Essay / assignment  Thesis / project  Oral / spoken examination  Multiple choice questions  Video submission  Group presentation / project  Portfolio  Any other suggestion?	i	<u>^</u>						

### **Exam Venue Checklist**

Name:	Date:	Time:
Venue type		Room Numbers:
Arts Building (group)		
Arts Building (low distraction)		
Arts Building (individual)		
IT training room		
EEPC 1 &3 (Panoz)		
Number of students;		
in venue at the official st	art time	
arriving late		
> leaving early		
> at official end time		
Number of Invigilators;		
> at the start		
> at the end		

General Questions						
	Yes	No	Comment	s		
Did the exam start on time, if late by how much?						
Did the exam finish on time, if late by how much?						
Did lecturers attend the venue?						
Were the windows or doors open during the exam?						
Invigilator / Reader on time						
Stickers on all scripts as outlined?						
Correct exam papers in venue?						
Physical Environment						
5=excellent, 4=very good, 3=f	air, 2= <sub> </sub>	poor, 1	=unaccepta	ble		
Overall			5 4	3	2	1
	Yes	No	Comment			
Desks facing walls in LV venue						
Adequate space between desks						

Unnecessary equipment / clutter (AV equip, boxes, chairs, tables) in the room										
Accessible to all student(s)										
Seating appropriate for student(s)										
Desk appropriate for studer	nt(s)									
Room Temperature suitable	!									
Lighting appropriate										
Distractions										
5=none, 4=rar	3=осс	asional	ly, 2=0	ften, 1	=thro	ugh	out			
Overall		5	4		3	2	_			
								_	1	
Within Room	Yes	No	Comm		1				1	
Within Room  Other Students (noise, movement)	Yes	No	Comm						1	
Other Students (noise,	Yes	No	Comm						1	
Other Students (noise, movement)  Invigilator (noise,			Comm						1	

Outside Traffic		
From corridor outside (Staff, other students, nearby offices, maintenance, cleaning etc.)		
Other		

## **Appendix C** Phase 3 - Student Feedback Questionnaire

- 1. How did you find the setup of the room?
- 2. Would you prefer to have the desks facing against the wall or facing out into the room?
- 3. Was there adequate room between the desks?
- 4. Were there any distractions from within the room?
- 5. Were there any distractions from outside the room?
- 6. Did you use earplugs?