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Foreword

It's been a very busy year for many colleagues in the specialist study support area – changes in DSA; the start of the auditing process; more students than ever asking for study support … It feels like the demands go on and on.

I think a consequence of that is the small, but perfectly formed, issue this year. All three papers cover topics that will help our reflective practice. Jane Warren's interesting findings on the speed of students' writing is interesting and something that will, I am sure, feed into universities' thinking and practice about inclusivity. It gives food for thought for assessors and many will enjoy Jane's conference workshop on this. Jacqueline Szumko has written a paper based on the workshop that she presented at last year's ADSHE conference. Student metacognition underpins our work with our students and I am sure that you will find her thoughts to be of interest to your practice. Ivan Newman and John Conway present the findings of their initial studies into delivering 1:1 specialist study tutorials by remote working tools like skype. This caused huge controversy last year when it came up as a discussion on Jiscmail and will, I feel sure, continue to create debate as we reflect on the pros and cons to our professional practice and the student experience.

Looking forward to the next issue: call for papers

You may feel that you want to write about DSA QAG audits and how they influence our practice, the ADSHE values and student success, please do start thinking about it.

Or you might like to address a response to the latest guidance (March 2017) to needs' assessors which states "*specialist mentors provide support to help students address barriers to learning, such as dealing with high levels of anxiety and stress, difficulties with concentration and managing course workload etc. [whilst] specialist 1:1 study skills provision is different … in that it is to address issues a student may have with information processing, i.e. … acquiring, recalling and retaining information in written and spoken language*". I believe that part of my role as a specialist tutor working with a student to help their study skills explicitly involves helping them manage anxiety, stress, concentration, workload issues. When did that change?

Or you may have a different topic of interest. Whichever it is, please do get in touch if you want to explore an idea for a paper in this journal. We do support nervous writers through the process and help them develop their writing, if they wish.

Karisa Krcmar
Editor

Contents:

About the authors:

John Conway
John works at the Royal Agricultural University as both a principal lecturer and head of disability service; his main interests are in (a) bringing academics to understand how dyslexic students can best assimilate information and prove their abilities, and (b) encouraging dyslexic students to make best use of the facilities available to them in their studies. He is on the board of directors of both NADP and ADSHE, chairs the GuildHE student support network and has previously chaired the STEM Disability Committee. John is also a member of the Disabled Student Sector Leadership Group which is working to encourage all HEIs to be more inclusive in their teaching and learning environments.

Ivan Newman
Ivan works with students from numerous Russell Group and other HEIs and companies. He brings science, managerial, general business and writing backgrounds to providing specialist study skills support, using particularly kinaesthetic and multisensory techniques in addition to storytelling and storymaking. Long familial exposure to SpLDs and other learning issues inform his practice. A keen triathlete, he has represented GB at numerous European and World Championships. He holds a BSc (Hons) Physics & Computing, MBA, Chartered Engineer, European Engineer, Certified IT Professional, PG Cert TADLHFE, PG Dip Assessing SpLDs, MA (SpLDs) and is currently following doctoral studies investigating the nature of the DSA Modernisation.

Jacqueline Szumko
Jacqueline is a specialist tutor for students with specific learning differences at Loughborough University. Jacqueline provides specialist one-to-one study support for students with a range of neurodiversities including dyslexia, dyspraxia and AD(H)D. She has a M.A. in Dyslexia Studies and holds AMBDA status. She has been a specialist tutor since 1998, previously teaching EFL, ESOL and French in F.E. and schools. She has been involved with designing staff development and teacher training courses, including the first postgraduate Certificate in Mathematics Support and Dyslexia/Dyscalculia in FE/HE. Jacqueline has a particular interest in the emotional and metacognitive aspects of learning as reflected in the personal development of students.

Jane Warren
Jane has been an ADSHE member since 2005 when she became a specialist dyslexia tutor assessor at the University of Southampton, so she has strong experience in teaching, screening and assessing students with dyslexia. Since autumn 2011 Jane has held a senior teaching fellowship on Southampton's MSc Ed SpLD, accredited for both AMBDA and AMBDA FE/HE and training a new generation of specialists. She combines this with a part-time post at Reading University doing diagnostic assessments.

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25 words per minute – the expected undergraduate writing speed?

Jane Warren

Abstract

The SpLD Assessment Standards Committee (SASC) frequently updates its list of approved tests and assessment procedures. However, an expected free writing speed of 25 words per minute (wpm) persists. The Detailed Assessment of Speed of Handwriting 17+ (DASH 17+), a tool widely used by specialist teacher assessors, is not designed as a true test of speed of free writing, relying as it does on a relatively undemanding prose task: ten minutes on the topic *My Life*. The resulting 'free writing' norm is 25 wpm for 19-21-year-olds. Can 25 wpm be a realistic expectation of higher-order free writing as expected in higher education, and what might be the standard deviation? This paper outlines the Simple View of Writing (Berninger and Amtmann, 2003) and reviews twelve relevant research studies in order to establish whether 25 wpm for real free writing on demanding tasks is a realistic benchmark. Free writing is known to be a complex task drawing on a wide range of subskills at different levels. Writing under examination conditions perhaps puts the greatest load on any writer, and one of the reasons for extra time in exams for both JCQ and university exams is 'slow writing'. However, what does slow mean in this context? There is an increasing body of evidence that short, undemanding tasks correlate poorly with writing in exams. The factors affecting free writing speed, conversely, may be too various to offer a robust basis on which to recommend access arrangements. The author hopes to follow up this paper with an analysis of free writing speed data garnered over three years of diagnostic assessment. Permission has been obtained from the line manager and head of Ethics and Research Governance at the University of Reading, and the findings will be presented at the ADSHE Conference 2017.

Background

Diagnostic assessment for dyslexia/SpLD has developed significantly since the original publication of the SpLD guidelines in 2005 (Department for Education and Skills and SpLD Working Group, 2005). The SpLD Assessment Standards Committee (SASC), following guidance from its subcommittee the SpLD Tests Evaluation Committee (STEC), frequently updates the list of approved tests and assessment procedures, and assessors are rightly and regularly reminded of the need to observe prescribed testing procedures, be suspicious of outdated standardisations and become ever more familiar with statistical techniques. Two figures, however, seem to have remained static for higher education (HE) within these constant changes: an expected free writing speed of 25 wpm and an expected silent reading speed of 250 wpm (STEC, 2016 revision, p.5,

although it should be noted that neither speed is mentioned in the 2005 original). This literature review is concerned with the former.

As STEC stated in an April 2015 update, the Detailed Assessment of Speed of Handwriting 17+ (DASH 17+), a tool widely used by specialist teacher assessors, is not intended to be a true test of speed of free writing, relying as it does on a relatively undemanding prose task which is in fact identical to that in the DASH 9-16; ten minutes on the topic *My Life*. For a higher education report "many assessors", including myself, "believe this subtest does not sufficiently challenge the student and will opt to implement a longer free writing task, one that is subject related and more closely mimics the demands that will be made on the student at HE level" (SASC, 2015 no pagination). However, the STEC undergraduate benchmark (March 2016 update) remains 25 wpm, despite the DASH 17+ manual (Barnett et al., 2010 p.94) giving an average free writing speed for ages 19-21 (typical of HE students undergoing diagnostic assessment) of 25 wpm for a much lower-order writing task. This raises the question of whether 25 wpm is a realistic expectation of higher-order free writing as expected in higher education. A review of the literature suggests very strongly that it is not.

Like reading, free writing is known to be a complex task drawing on a wide range of subskills at different levels (Ferrier et al., 2013; Peverly, 2006, *inter alia*). Writing under examination conditions perhaps puts the greatest load on any writer, and one of the reasons for extra time in exams for both JCQ and university exams is 'slow writing'. Hence, a robust measure of 'slow writing' is highly desirable. However, what does slow mean in this context? Many studies highlight the complexities and limitations of this quest (Horne et al., 2011; Sawyer et al., 1996 *inter alia*). There are three principal approaches to the measurement of writing speed: copying, dictation and 'free writing', with or without prompts (Horne et al., 2011) and speed is typically addressed by either the output within a given time or the time taken to write a given text. There is an increasing body of evidence, which will be considered in more detail later, that short, undemanding tasks correlate poorly with writing in exams. However, it is arguable that the factors affecting free writing speed are too various to offer a robust basis on which to recommend access arrangements. As Horne et al. (2011 p.54) point out, "writing speed varies according to the nature of the task, and it is debatable what approach is most appropriate for determining whether or not a student should be entitled to additional time in examinations."

Following Gough and Tunmer's (1986) simple view of reading, a model of a simple view of writing has been developed:
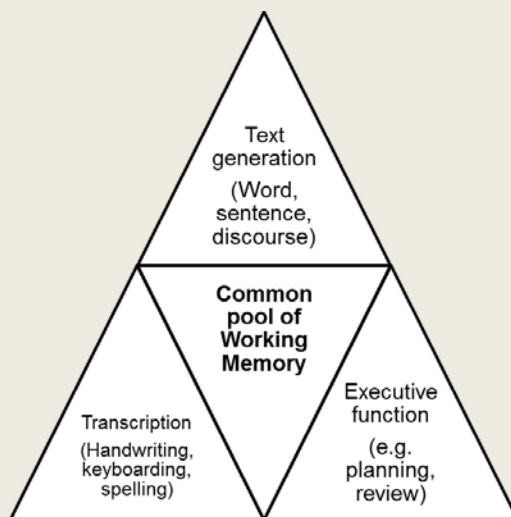
Figure 1: simple view of writing, adapted from Barnett (2014) after Berninger and Amtmann (2003)

It can readily be seen that this model is more complex than Gough and Tunmer's 'simple view' that reading = word recognition + oral comprehension[1], reflecting the greater complexity of writing as a task. Assessment tools which test writing speed may privilege or exclude either text generation (for example in dictation or copying tasks) or executive function (when topics are very simple or tasks are very short). Transcription is always tested, to a greater or lesser extent. As long ago as 1994, Alston (cited in Sawyer et al.,1996; Allcock, 2001) had suggested that motor skills would be the most likely factor affecting writing speed in cases of dyspraxia, while dyslexia would be more affected by text generation and executive function issues. She suggested that repeated copying could measure the motor issues, while 20 minutes free writing (written output measure) would be more appropriate for dyslexia. Sawyer et al. (1996) broadly agreed. Peverly (2006) notes the relative paucity of research on adult writing speeds and suggests that while the influence of lower-order skills such as transcription decreases with maturity, it does not disappear. For that reason, this paper will review relevant evidence from secondary-aged cohorts as well as the few studies which focus on adults.

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[1] although Tunmer, at least, has recently increased the complexity of the model (Tunmer and Chapman, 2012)

Papers reviewed

The following table summarises the evidence reviewed in this paper:

Date	Study/Test	task	Sample size	wpm	age range	time limit
1995	Hedderly	sentence completion	2000	25	18	10
1996	Sawyer et al	copying	41	200 ch	Y10	5
1998	Roaf	free writing	249	15-25	16 (Y11)	10
2001	Allcock	free writing	2701	16.9	16	20
2003	Summers and Catarro	examination	66	15-18	20	120
2005	Connelly et al	examination	22	13/19	u/g	60
2006	Connelly et al	examination	60	14/17	u/g	30
2008	O'Mahony et al	free writing	1224	n/a	8 to 18	3/9
2009	DASH 17+	free writing	393	25	17-25	10
2011	Horne et al	dictation	952	24	17	n/a
2012	York AB Rev	précis	126	21.7	u/g	10
2013	Ferrier et al	free writing	364	8.9	11 (Y7)	20
2016	SASC guidelines	free writing	n/a	25	adult	15

Figure 2: Summary of research considered in this paper

Barnett, Henderson, Scheib and Schulz (2009) outlined in detail the development of the DASH (2007), noting how they had explicitly chosen the topic of the free writing task, *My Life*, because most children would find plenty to write about, especially with the help of the spider diagram prompt. In 2011 the same team published a study discussing the applicability of the DASH 17+ (2010) for assessment of DCD/dyspraxia, which gave

details of the extension of the standardisation using 393 students aged 17-25. The age band results are as follows:

Free writing	Mean	SD
17-18	23.54	4.53
19-21	25.26	4.99
22-25	26.94	4.82
Total	24.89	5.3

Figure 3: free writing norms from DASH 17+ (Barnett et al., 2011 p 118)

This is again based on the topic of *My Life*, and again planning is permitted and prompts provided. The norm hovers around 25 wpm with a modest increase with age, and the standard deviation (SD) hovers around 5.

The original source for a 'free writing' norm for HE of 25 wpm seems to be the Hedderly Sentence Completion task (Hedderly, 1995), which gives this speed an exactly average standard score of 100 for 18 year olds *in education*. The norm for 18 year olds in general was only 20 words per minute, and it should be noted that there are now very many more 18 year olds in education than there were in 1995 (Bolton, 2012). Hedderly's sample was taken from a single local authority area in the north of England which he claimed to be representative of the wider population. His results do not appear to be normally distributed: where 25 wpm was the mean, 28 (m+3) wpm was at the 90th percentile but 16 wpm (m-9) at the 10th percentile. Furthermore, the Hedderly task consists of 40 prompts such as '*I like…, The best…; What upsets me…*' This is neither free nor representative of extended prose, and furthermore the test-taker is directed to write "*in your neatest writing, as though you were taking an exam*" (surely an oxymoron; see citations in Summers and Catarro, 2003, p.150) despite the test being devised to identify candidates for extra time. As Ferrier et al (2013), pointed out, the cognitive load of the Hedderly task is light, and gives a mean for 11 year olds of 13 wpm; in contrast, Christensen (2005)'s *Three Wishes* task puts a much greater load on executive function and the mean writing speed for 11 year olds drops to only 8.5 wpm.

Roaf (1998) surveyed the Key Stage 4 cohort in her own school owing to concerns about handwriting fluency and its impact on exam outcomes. To the reader today one point stands out; her assertion that her school is 'typical' in having around 2% of students qualifying for any kind of access arrangement. A glance at the 2015 data

(OFQUAL, 2015) shows that the proportion of the GCSE cohort approved for extra time alone has quadrupled to 8%. Roaf's sample, despite coming from only one school, was a sizeable 1273, split across all five year groups. The task asked the students to write for ten minutes on a subject of their choice, followed by 2.5 minutes' correction time. In year 11 she found that 15% of the year group were 'fast' writers, producing 25+ wpm, while 25% were 'slow', producing less than 15 wpm. This again suggests that writing speed may not be normally distributed: her 'average' range appeared to be between 15 and 25 wpm, but this was achieved by only 58% of participants, and as with Hedderly there is a clear weighting to the 'slow' end of the range.

Most readers will be familiar with Allcock's (1999, 2001) research which resulted in the assessment protocol and norms (Group and Individual Assessment of Handwriting Speed (GIAHS)) published by Patoss and widely used by specialist teacher assessors before the publication of the DASH. The task was free writing on a self-chosen topic, this time for 20 minutes and with two minutes' planning time. The last update incorporated norms derived from 2701 candidates across all five secondary year groups, and gave an average speed of 16.9 wpm in Year 11, towards the lower end of Roaf's 'average' range, with 12.7 wpm calculated as 25% slower and hence necessitating extra time. As the tasks differed mainly in length, this may reflect the difficulty of maintaining writing fluency over longer periods of time.

Summers and Catarro (2003), working from an occupational therapy (OT) perspective, compared the results of the very short (three minute) Handwriting Speed Test (Wallen et al, 1996), widely used in Australia to establish entitlement to access arrangements, with the actual exam output of 66 second-year OT undergraduates. The Handwriting Speed Test (HST) is a three-minute repetitive copying task of the 'quick brown fox' sentence. The two exam papers comprised a seen and an unseen paper. The researchers found a very low correlation (r^2 =0.072) between the results of the HST and the examination outputs. In addition to speed, participants were also asked to rate their perceptions of pain and fatigue and their pen grip and legibility were evaluated, reflecting the interests of OTs. They cited a number of earlier papers including Connor (1995) and Dutton (1990), which found that 17 year olds wrote in self-selected free writing tasks at 18.2 and 18.5 wpm respectively. However, when Connor's participants had a topic imposed (as in an exam) their output fell to 11.5 wpm. Interestingly, Connor also found a high (0.9) correlation between character counting and word counting, indicating that word counting is a valid measure of writing speed, despite Sawyer et al's (1996) assertion.

Summers and Catarro (2003)'s own results were as follows:

Table 1	Handwriting speed (wpm) for three writing tasks		
Writing task	Mean	SD	Range
Handwriting speed test (3-min writing test)	37.83	4.71	27.0-51.7
Exam 1 (2-h exam with prior knowledge of questions)	17.75	2.78	11.8-25.7
Exam 2 (2-h exam without prior knowledge of questions)	15.37	3.12	9.4-23.2

Figure 4: Summers and Catarro (2003, p.152) table of results

This indicates that the exam outputs were at least 50% slower than the copying task and the variability much lower, based on the standard deviations quoted, although writing speed was even slower without prior knowledge of the question. Note that the researchers excluded students with known motor difficulties from their study so the very slow speeds at the lower end of the range cannot be attributable to that. In the 'no prior knowledge' condition, there was no statistically significant relationship between the HST results and the exam output. Where the question was known, there was a weak relationship accounting for only 7% of variance. Note that 25 wpm lies at the upper end of the range of exam outputs where the question is known and beyond the upper limit for an unseen paper. Summers and Catarro end by echoing Alston (1994)'s suggestion that written output is a preferable term to writing speed for evaluation of longer writing tasks.

O'Mahony, Dempsey and Killeen (2008), again from an OT perspective, further developed Summers and Catarro's findings that short tasks are not predictive of actual performance in naturalistic exam conditions. In the course of developing HST (1996) norms for an Irish population aged 8-18 they examined the effect of duration of task as well as handedness (which made no difference). They compared the published HST with the same task continued for nine minutes. They found that children generally wrote faster in the short test condition than the longer one; the difference was statistically significant but did not make a large practical difference. However, further analysis showed that of the 16% of children identified as 'slow' (-1 SD), only 53% (just over half) were identified by both conditions. They suggest that decision-making about eligibility

for extra time should not rest on the short HST alone but that the nine-minute task should be a routine addition.

Connelly, Dockrell and Barnett (2005) found slow handwriting in undergraduates in general to constrain performance in essays under examination conditions. They investigated the impact of lower-order transcription skills on written output with and without time constraints. They observe that undergraduates typically handwrite much less than their peers in previous generations, and also less than most schoolchildren. Even this paper is now over a decade old, and keyboarding has become ever more prevalent than handwriting in the intervening years. Connelly et al. (2005) assume a capacity model of writing: individuals have a finite cognitive resource and additional load on one element of the writing task (see simple model above) will reduce the resource available for the others, so that decreased fluency of transcription will reduce the quality and/or quantity of the other two elements. The participants were 22 second-year psychology undergraduates, whose handwriting fluency was measured using a one-minute alphabet writing task. Two conditions of prose writing were then compared: a one-hour seen formative essay in class (unpressurised) and an actual one-hour essay undertaken during a real summative exam (pressurised). In addition to speed, quality of written output was evaluated using a rubric. Connelly et al. were surprised to discover that the letters-per-minute fluency measure placed the students on average at the level of 11 year olds. While students wrote faster under exam conditions (19 wpm on average, as opposed to 13 wpm in the unpressurised condition), the variance of their final awarded marks correlated strongly with their handwriting fluency; this association was not observed in the unpressurised condition. These findings mirrored those of Berninger's (1999) research with high school children; not only were the undergraduates writing with the fluency of 11 year olds, the proportion of variance in the quality of output also mirrored Berninger's findings with 11 year olds. They concluded that output in written examinations is not necessarily an accurate reflection of what students know and understand.

Following this, Connelly, Campbell, Maclean and Barnes (2006) explicitly investigated the impact of transcription fluency skills on students with and without dyslexia. With ever-larger numbers of students with dyslexia entering higher education and the prevalence of essays and written examination as assessment tools, they stated that the relationship between dyslexia and writing at HE level was in urgent need of investigation. They predicted that spelling insecurity undermines the writing fluency of dyslexic students. Other constraints of dyslexia were predicted to include handwriting fluency itself, reduced working memory capacity and more limited reading vocabulary, resulting in reduced quantity and quality of written output. They cited Sterling et al. (1997) who found a lower word count, high spelling error rate and limited lexical choice

in dyslexic students' writing samples using an undemanding task with a writing frame. Connelly et al. (2006) devised a more 'ecologically valid' higher-order task with both age-matched and spelling-level matched control groups, in order to ascertain whether dyslexic students' written output was unexpected in the light of their spelling level, but predicted that higher-order skills such as organisation should be less affected by literacy level. They also measured memory, reading fluency and handwriting fluency (one-minute alphabet task). Their dyslexic cohort of 21 adults, 3 men and 18 women, all had post-16 assessments and an average age of 19. The spelling-matched control group varied more widely in age from 11 to 31, with spelling skills ascertained using raw WRAT3 (1993) spelling results. The task was a 30-minute essay on a demanding topic from the American GRE (graduate entry exam): *It is often necessary, even desirable, for political leaders to withhold information from the public.* The essays were evaluated by trained users who were unaware of the nature of the study, using the Wechsler Objective Language Dimensions (WOLD), a standardised writing evaluation tool. Overall inter-rater reliability was an excellent 0.91. Other measures included word count, sentence length, lexical diversity and spelling error rate. From the many interesting comparisons drawn, I will focus only on writing speed. The dyslexic cohort did produce shorter essays, but the spelling error rate was 3%, higher than either control group but much lower than the 8% found by Sterling et al (1997). There were no significant differences in sentence length or lexical diversity, but handwriting fluency was said to be at the 12-year-old level, similar to that found by Connelly et al. (2005) for students without known SpLDs. The results on p. 185 quote a mean of 414 words and a SD of 151 words overall. In a 30-minute task this equates to 14 wpm mean +/- 5. However, the CA-matched controls' mean production was 505 words with an SD of 136, which equates to just 17 wpm =/- 4.5. Connelly et al. made a clear case for dyslexic students requiring extra time to compensate for their measured weaknesses in transcription and working memory skills. However, if the age-matched cohort was only managing 17 wpm, this offers strong evidence that SASC's 25 wpm is highly optimistic.

Horne et al's (2011) dictation task, without any text generation load, provided written norms of approximately 24 wpm, while the précis task within the York Adult Assessment Revised battery (YAA-R) (Warmington et al., 2012) gave 21.8 (SD 4.09) wpm. Précis could be considered intermediate between dictation/copying and true free writing, although it adds some text generation load in deciding what key information is needed. The YAA-R also includes copying tasks to assess mechanical writing and typing speeds; the handwriting gives a mean of 31.09 (SD 4.41), somewhat lower than the copying task in the DAST (1998) whose norm is 35 wpm. Of particular interest is the comparison in Warmington et al's (2013) accompanying paper (table 4) giving separate means and standard deviations for the dyslexic and non-dyslexic cohorts.

Task	**No SpLD** mean (SD)	**Dyslexic** mean (SD)
Précis rate (words/min)	23.74 (4.51)	19.49 (4.62)
Spelling error rate (%)	1.51 (2.14)	6.49 (4.28)
Handwriting	31.42 (4.20)	27.02 (4.34)
Typing	43.52 (15.15)	33.45 (11.05)

Figure 5: comparison of dyslexic and non-dyslexic writing speeds in YAA-R

Reviewing intake reports in October 2016, I noted that a writing speed of 14 wpm at 17:7 years old gave a standard score of 110 on the WIAT II (2001). I consulted an educational psychologist friend who kindly shared the information that the manual gives only quartile results for the elements of the WIAT II. The task is a set higher-order task and planning time is included in the 15-minute time limit. Dividing the output ranges by 15 gives the following:

WIAT II	wpm	wpm
Age band	17-20	21-25
Q1	<5	<5.8
Q2	5 to 7	5.8 to 7.8
Q3	7 to 9.3	7.8 to 11
Q4	> 9.3	>11

Figure 6: WIAT II extrapolated word counts, after Table B10, (WIAT II, 2001, p 104)

This appears to suggest that the median average free writing speed for young adults is somewhere in the range of 7-8 wpm. This seems absurdly low, although including planning would affect this to some extent.

Finally, although Ferrier, Horne and Singleton's (2013) cohort comprised 11 year olds, it provides a highly useful overview of the complexities of assessing writing speed and questions whether free writing is a valid measure at all, especially in the high stakes field of eligibility for access arrangements. The participants were 364 Year 7 pupils from two Oxfordshire secondary schools, and the task used was the Allcock GIAHS. Crucially, while factors such as underlying ability, SEN and EAL status were significant, the most notable finding was a 'teacher effect'. Despite higher mean ability overall, a lower prevalence of SEN and lack of streaming, the students in one school wrote more slowly than the other. The researchers suggest that this may be because this cohort has recently been taught, and may have implemented, specific planning strategies. They go

on to question the reliability of free writing norms; given the effect of different classroom environments and experiences. Allcock's norms gave a mean score for Year 7 of 13.9 wpm. Ferrier et al. found that the fastest speed achieved in their cohorts, in the top stream of the streamed school, was only 10.1 wpm, and the mean across both cohorts only 8.94, 35% lower than Allcock's norms. They posit three possible reasons for this: a sampling difference, a 'reverse Flynn effect' [2] or variation in test administration. Extrapolating a standard deviation (not quoted in Allcock's work) of 4.8, Ferrier et al. note that this makes the difference between Allcock's norms and their findings approximately one standard deviation, which is so much larger than any documented Flynn effect that it suggests other factors are at play. They go on to point out that if the Allcock threshold criteria were applied to their data,

> 70.2% of the students would qualify for extra time, and 48.3% would qualify for a scribe. Even allowing for the fact that the number of students in this study with SEN was somewhat above the national average, these are astounding figures (Ferrier et al., 2013 p.75).

This is even more concerning as overall the DASH, which is now likely to be more widely used for access arrangements than the GIAHS, gives even higher norms for free writing; something over 16 wpm for 11 year olds. One is reminded of headline figures for fuel efficiency in cars and how rarely they seem to be reflected in reality. As a preliminary conclusion, it appears that 25 wpm is not realistically representative of higher order 'free writing' in HE. There at least needs to be some sense of a range: Price and Skinner (2007) used a range of +/- 5 (20-30 wpm), which is more realistic than a raw figure but may still be too high. However, where standard deviations are available they often hover around 4.5-5. Given the known constraints of dyslexia on writing, the intention is not to suggest that students with dyslexia should not have extra time in exams. However, to use 25 wpm as a benchmark for true free writing tasks, as SASC currently suggests, is likely to lead to over-identification.

Implications for further research

As a diagnostic assessor in HE of over ten years' experience, I routinely include 15 minutes' free writing on a negotiated academic topic and my 'gut feeling' is that 25 wpm is rare. I have access to a large dataset in the form of the 203 reports produced over the last three academic years. Gaining retrospective informed consent from all these students would be impractical, but I sought advice from the head of research governance at the university involved and consent from my line manager, and was

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[2] The Flynn Effect details gains in intelligence scores of around 3 standard score points per decade between generations over the course of the twentieth century (Flynn, 2007; Lichtenberger and Kaufman, 2009, p. 34). A 'reverse Flynn effect' therefore refers to unexpected decreases in standard scores over periods of time.

advised that provided the dataset was stripped of any personal identifiers there is no ethical barrier to its use. In a follow-up paper and presentation for the 2017 ADSHE conference I intend to analyse this dataset fully. If any fellow assessor who uses a similar free writing task would like to contribute anonymised data, please contact me at: jcw12@soton.ac.uk

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Anxiety and Metacognition

Jacqueline Szumko

Abstract

The importance of metacognitive skills in identifying and putting into perspective 'justifiable anxiety' is suggested. It is also proposed that poor metacognitive skills can lead to increased anxiety in students, whereas good metacognitive skills lead to greater confidence and a higher likelihood of success in study and work and, furthermore, have a positive effect in everyday life. This paper offers a further exploration regarding links between anxiety and metacognition first put forward in Allum, Minns and Szumko (2016) and also presented at the ADSHE Conference at Aston University in June 2016 (Szumko and Krcmar, 2016). It is therefore set within this context as an ongoing discussion.

Introduction

Specialist tutors are well aware that many of the students we see are anxious about their academic studies to a greater or lesser extent and we question what we can do within our professional role to help diminish the anxiety. This is a double need firstly because we do not like to see students distressed, but also because when a student is anxious their anxiety is at the forefront of their minds and not whatever strategy or topic we might be trying to work on. Furthermore, sometimes there is a resulting resistance to considering different ways of studying and students will cling to their habitual methods in the face of overwhelming evidence that they do not work particularly well for them. The connection between anxiety and metacognition is made in considering the following statement:

> To allow someone to feel that they are over-anxious when it would be more correct to say that they are justifiably anxious is an appalling kind of error…
> (Miles and Varma, 1995 p.120)

It is helpful to have a specialist tutor verbally acknowledge that there is a real reason for the anxiety to have developed and that it is not the case that the student is incapable. It is absolutely necessary for a student to become aware of their own cognitive profile and metacognition in order to *put into perspective* their concerns about academic study. With good metacognitive skills, a student becomes aware of the cause of their anxiety and better equipped to be able to take practical action to ameliorate the situation and thereby become a "capable person" in this context and decreasing the anxiety. Students need to be able to work out for themselves why **this** strategy might work while

that one probably will not, and this knowledge should be transferable to the work place and other life experiences.

This paper offers further explanation regarding the links between anxiety and metacognition first described in Allum, Minns and Szumko (2016) and also presented at the ADSHE Conference at Aston University in June 2016.   Figures 1 and 2 are reproduced from the article and conference to aid recall and increase clarity. These ideas have evolved over many years of study, reading and experience. Some of the references used in this paper may be considered old, but they stand the test of time, as we "stand on the shoulders" of those who went before.

Metacognition can be defined as being aware of and understanding how we think, and the processes involved in our thinking (Goodwin & Thomson, 2005). McLoughlin and Leather (2013) tell us that metacognition is not automatically acquired, but is learned from positive educational situations. They also state that neurodiverse students are late bloomers regarding metacognition, because they do not have enough positive educational experiences during their school days. This means there is catching up to do during study support sessions. Metacognition has long been viewed as being of key importance to our work, however, as a profession, we should question whether it really does comprise an integral part of our work in the same way as teaching academic writing skills, for example.

The following sections will consider firstly the negative effects of poor metacognitive skills and secondly the positive outcomes of good metacognitive skills. Each section will start with a summary diagram (reproduced from Allum, Minns and Szumko, 2016) followed by an explanation of each factor mentioned. The diagrams were developed as visual summaries and, in the nature of diagrams, are "simplified". In reality the factors are interconnected and overlapping.

Poor Metacognitive Skills

Poor metacognitive skills lead to dependent learners (i.e. learners with an over-reliance on study support and/or helpful academic staff) and low self-esteem. This leads to a higher likelihood of stress, anxiety and depression. Figure 1 is an attempt to tease out and evidence interlinked and inter-related factors pertaining to this, and expresses essentially what is happening for the student with poor metacognitive skills. The issues are then discussed in turn.

Figure 1: the negative effects of poor metacognitive skills (Allum, Minns & Szumko, 2016 p63)

poor metacognitive skills

Inappropriate use of skills &
strategies

Over reliance on strategies
that do not work

Lack of understanding of own
cognition

Difficulty generalising new
skills & strategies

lead to dependent learners

Lack of control over the learning situation

Failure of coping strategies

Incomprehension of "what is going wrong"

Transitions are difficult

Poor self-advocate

Stress, anxiety, depression

with low self-esteem

Negative self-advocacy

Blames self for failures

Low expectations from self & others

Lack of confidence

Fear of failure

Less likely to persevere

Academic & workplace success less likely

Poor metacognitive skills lead to:

Inappropriate use of skills and strategies: There is a tendency to rely heavily on methods that are not appropriate to the task in hand or to the student's cognitive strengths, e.g. reading over and over (McLoughlin & Leather, 2013).

Over-reliance on strategies that do not work: The student tends to stick to methods learned at school, even if they do not work (Alexander-Passe, 2012; McLoughlin & Leather, 2013). This is accompanied by a fear of not being able to manage if they try a different way.

Lack of understanding of own cognition: The student uses inappropriate learning methods because they do not know that different people have different cognitive strengths and weaknesses, and they do not know their own. Study skills that are picked up are usually appropriate for neurotypical students, but are often less so for neurodiverse students.

Difficulty generalising new skills and strategies: There is little understanding of how to apply new skills and strategies to new or different tasks and situations, so the student is not able to transfer skills (McLoughlin and Leather, 2013).

Consequences of being a dependent learner are:

Lack of control over the learning situation: The student is reactive, not proactive. They often feel that the situation is out of their control and that whatever they do will not make any difference. This is very stressful. Feeling in control is a key factor in mental well-being (Oxford Student Mental Health Network, 2007 cited in McCrea, 2009). It is also an important factor leading to success in the workplace (Gerber, 2002).

Failure of learning strategies: This occurs where strategies are inappropriate to cognitive style and/or the task in hand.

Incomprehension of "what is going wrong": The student is working hard, but not achieving appropriate results. This often leads to the very stressful situation where the student knows they should be more capable and successful than they seem able to be. There are also feelings of frustration, alienation and inferiority. (Alexander-Passe, 2012).

Transitions are difficult: Changes from school to university and university to work place or postgraduate study are often difficult to cope with. When existing support structures are withdrawn the student's difficulty in generalising skills is highlighted.

Student is a poor self-advocate: The student has difficulty explaining exactly what the problem is, as the problem is not really understood. It is also likely that they do not have the necessary specific vocabulary or phrases to explain an issue to academic staff. Being a poor self-advocate causes anxiety (Nalavany, et al., 2011).

Stress, anxiety and depression are more likely: Poor academic performance, negative feedback and daily hassles are the kinds of stresses that lead to depression (Nalavany, et al., 2011; Alexander-Passe, 2012).

Being a dependent learner leads to low self-esteem:

Negative self-efficacy: Our behaviour is under the control of what we believe we are capable of achieving (Burden, 2005). Where students expects to "fail", some experience this as "rabbit in the headlights syndrome", where they completely freeze and can hardly even begin a task, whereas others delay beginning, or work so tentatively that failure is almost a forgone conclusion.

Blaming self for failures: A sense of inadequacy, even impotence sets in very early on (Bartlett & Moody, 2000:148). The student believes that everyone else can do things easily and it is just them who has any difficulty (McLoughlin & Leather, 2013).

Low expectations from self and others: Nash's seminal work in 1976 raised awareness of the link between teacher expectation and pupil progress. Extrapolating further, and this is borne out by experience, where there are low expectations from (any combination of) parents, peers, academic staff or study support, the result is that student does not expect much of him-or-herself and this becomes a self-fulfilling prophecy.

Lack of confidence: Confidence is enormously undermined by low expectations and poor results in return for effort (Pollak, 2005). There may also be an element of learned helplessness.

Fear of failure: This can be a constant energy and confidence sapping concern. Furthermore, students have expressed the view that not trying in case of failure is "not as bad as trying and still failing" (Chinn and Crossman, 1995:49).

Less likely to persevere: It takes a huge amount of personal resources to continue to strive in the face of continuous limited success or repeated embarrassment and failure. Often the effort is not sustainable.
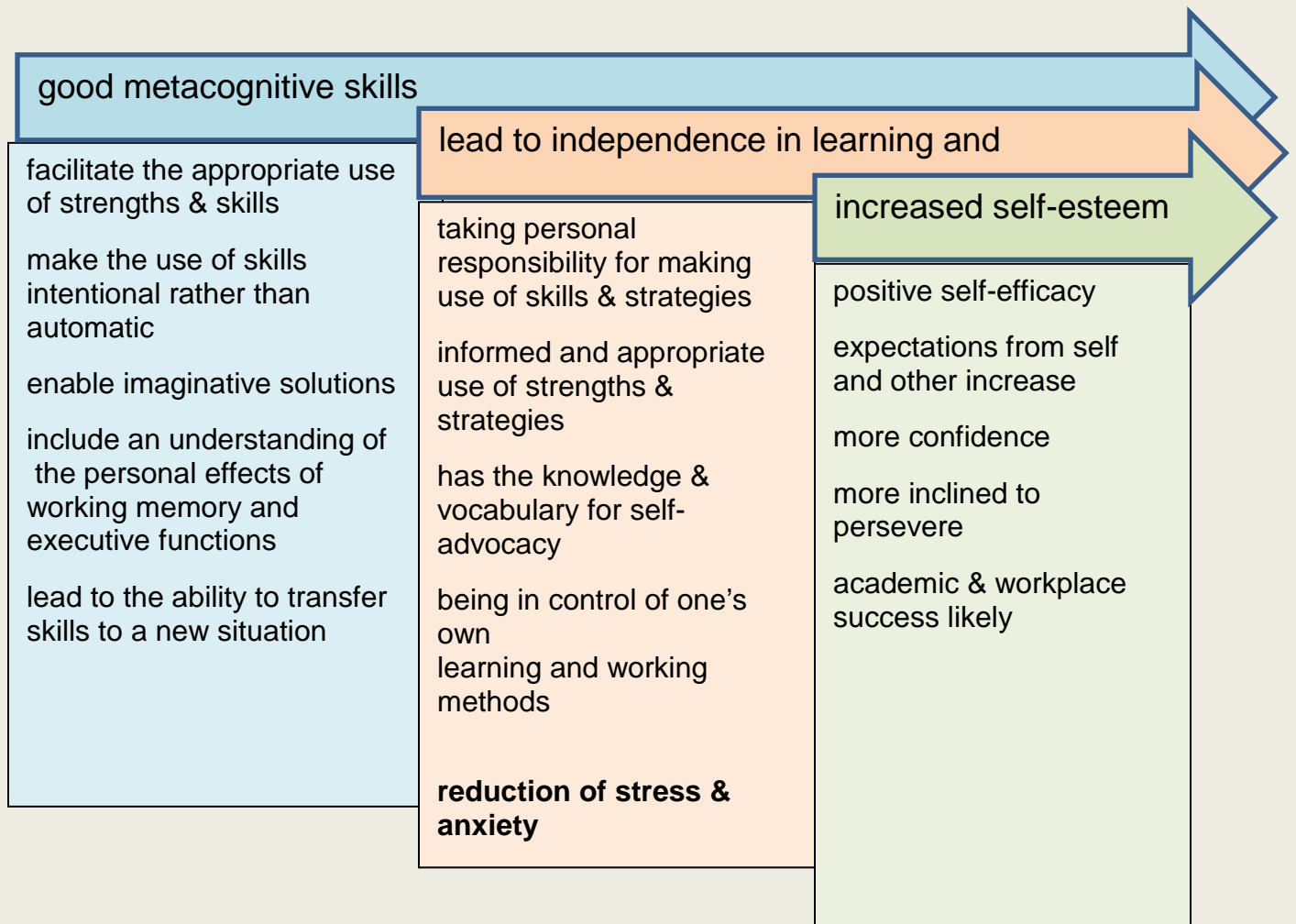
Academic and workplace success is less likely: The factors listed above represent often insurmountable hurdles.

The above factors range in severity of effect in different students depending on their personal resilience, history and personal support structure. In the best case scenario, we may see a student who has underdeveloped metacognitive skills who is hesitant of trying new study strategies and needs much reassurance. At the other end of the extreme are students who go to pieces under pressure, and/or have deep-seated anxiety or depression and also require support from mental health professionals.

Good Metacognitive Skills

Good metacognitive skills lead to independence in learning (i.e. where the student relies on him/herself first and foremost) and increased self-esteem. Good metacognitive skills are crucial for academic success in H.E. and for mental well-being. This section comprises of an exploration of the positive factors listed in Figure 2. An illustration of the positive benefits of good metacognitive skills in the form of reflections written by two students and some practical ideas for tutors can be found in Allum, Minns and Szumko (2016).

Figure 2: The positive outcomes of good metacognitive skills (Allum, Minns and Szumko, 2016 p.62).

good metacognitive skills

lead to independence in learning and

increased self-esteem

facilitate the appropriate use of strengths & skills

make the use of skills intentional rather than automatic

enable imaginative solutions

include an understanding of the personal effects of working memory and executive functions

lead to the ability to transfer skills to a new situation

taking personal responsibility for making use of skills & strategies

informed and appropriate use of strengths & strategies

has the knowledge & vocabulary for self-advocacy

being in control of one's own
learning and working methods

reduction of stress & anxiety

positive self-efficacy

expectations from self and other increase

more confidence

more inclined to persevere

academic & workplace success likely

Good metacognitive skills:

Facilitate the appropriate use of strengths and skills: This puts the student in charge of their learning methods. Being self-aware regarding dyslexia; the ability to identify personal strengths… and developing appropriate compensatory strategies are the building blocks to success (Nalavany et al, 2011 p75).

Make the use of skills intentional rather than automatic: The student makes a conscious decision which skill to use, rather than automatically using old, pre-learned skills that do not work (McLoughlin, 2001; Mortimore, 2003).

Enable imaginative solutions: We need to 'reconnect learners with their own resourcefulness' (Herrington, 2001 p173). In his 2012 study Alexander-Passe found that non-depressives tended to use humour and creative or divergent thinking as coping strategies (Alexander-Passe, 2012).

Include an understanding of one's own executive functioning, especially working memory: The student needs to understand their own manifestation of neurodiversity in order to be able to *reframe* (Reiff, Gerber and Ginsberg,1997). Furthermore, memory difficulties are a real problem in life skills for adults. Alexander-Passe (2012) found that non-depressives were less affected by their working memory deficits. We could speculate that perhaps they have better strategies for dealing with them.

Lead to the ability to transfer skills to new situations: The student can cope with new situations because the appropriate use of skills is now a conscious decision (Townend, 1999).

Independent learning means:

Taking personal responsibility for making use of skills and strategies: The student prefers to make their own learning decisions and does not need the study support tutor to tell them how to do something (Mortimore, 2003).

Informed and appropriate use of strengths and strategies: The student themself has the knowledge and skills to choose methods and strategies that are appropriate to both their own strengths and the task in hand (McLoughlin, 2001; Mortimore, 2003).

Having the knowledge and vocabulary for self-advocacy: This is a consequence of students understanding their own metacognition and being able to foresee how they will manage in a particular situation. Discussions and/or activities can help provide appropriate vocabulary and phrases to use for self-advocacy and give the confidence to use them.

*Being in control of one's own learning and working methods***:** Insofar as circumstances allow or can be advocated for, the student knows and has obtained their optimal working conditions.

Reduction of stress and anxiety: Individuals are capable of dealing with situations, feel in control and can make appropriate decisions about strategies and choices.

Consequences of increased self-esteem:

Positive self-efficacy: This means having the '…belief one has the skills and strategies to act in an effective manner when called to do so' (Burden, 2005). Self-belief leads to feeling capable, which in turn leads to positive action. This results in greater self-belief and the cycle continues.

Expectations from self and others increase: Expectations of success increase with success and lead to further success (after Nash, 1976).

More confidence: This is illustrated in one study where methods for achieving success employed by neurodiverse adults included 'ignoring people who believe "you cannot be successful" or who "invalidate you"'(Nalavany, 2011 p72).

More inclined to persevere: Perseverance is facilitated by the prospect of success being likely.

Academic and workplace success likely: A high level of metacognitive skills is necessary to succeed in H.E. (Pollak, 2009). These skills need to be transferable to the workplace as enhanced levels of planning and metacognition and a reduced level of cognitive failures are shown to be related to personal success (Leather, 2011).

As with the factors relating to poor metacognitive skills, those relating to good metacognitive are inter-connected and overlapping, building an individual's self- esteem and independence. Furthermore, good metacognitive skills are not just good for formal education, but are skills for life and good health. As Nalavany et al found in their extensive study:

> Having the ability to identify personal strengths in the face of what may seem to be overwhelming odds can be important in the everyday tasks of life…understanding physical activity or other hobbies can contribute to one feeling centred and in control can combat stress and raise self-worth (2011 pp 74-75).

Furthermore, consciously thinking about what factors or activities cause stress and which mitigate it, can be a powerful exercise to help maintain good mental health and provide a means of self-righting when stressed or anxious. *Stressors and Soothers* is an example of activity that is effective in this regard (Kirkham, 2016).

To refer back to the Metacognitive Mind Map discussed in Allum, Minns and Szumko (2015), it can be seen that including interests, hobbies and life skills when considering their strengths was beneficial to both Lewis and Ned. It may be the case that identifying strengths, which is intrinsic to learning metacognitive skills, may occur piecemeal during support sessions and this may well be a strong contributing factor to their success. However, there are multiple benefits to doing this in an overt fashion with time dedicated to the task.

Conclusion

It is important where necessary to recognise with a student that they are 'justifiably anxious' (Miles and Varma, 1995) and to identify, insofar as we can, the cognitive origin of this anxiety, for example working memory difficulties. This can clarify matters for the student and can help to put the justifiable anxiety in perspective. Along with this it is necessary for the student to understand how, in practical terms, things can be different in the future. This involves developing together an appropriate tool box, or wardrobe, of strategies that can be taken out and tried in different situations. Our aim is to help the student become a confident autonomous learner and success comes when the student can see that this can happen and that it is happening now. In this process anxiety, related to study success, gradually lessens as students begin to feel in control; this affects study, work and life.

Difficult though it may be, we need to find time to develop students' metacognitive skills. This can be done overtly, as described in Burwell and Szumko (2015) and Allum, Minns and Szumko (2016) or embedded in the way we operate, as described in Boydell et al (2016). The metacognitive skills for study should be considered as transferable life skills with the aim of students being able to "pick up the ball and run with it", as described by Ned in Allum, Minns and Szumko (2016). Along with the development of metacognitive skills come other factors necessary for success such as motivation, perseverance and self-belief.

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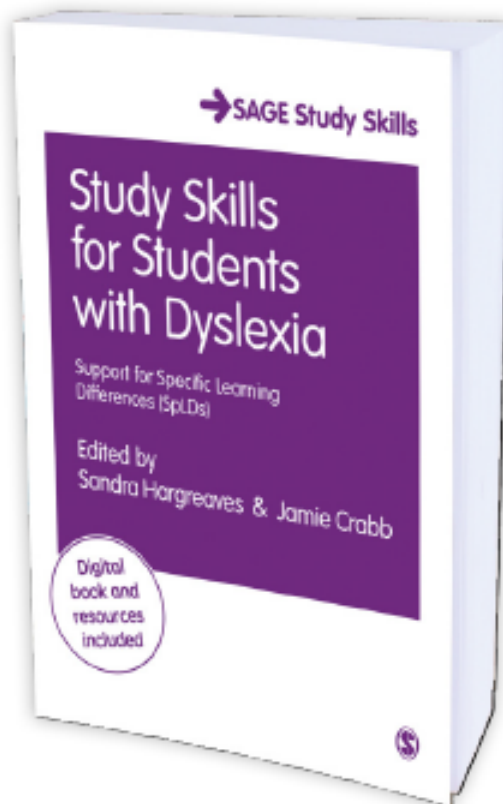
Delivering Specialist Study Skills Tutorials via Remote Working Tools (RWTs). An Investigation of Specialist Study Skills Tutors' Views

Ivan Newman and John Conway

Background

This investigation is based on one element of broader, doctoral research which examines the effects of changes in Disabled Students Allowances (DSA) on specialist one-to-one study skills support delivered to HE students in receipt of DSA, notably, but not exclusively, those with specific learning difficulties (SpLDs).

This report concerns one of the changes introduced to specialist one-to-one Study Skills Support (aka as Band 4 Non-Medical Helper Provision), namely that the delivery of remote (i.e. not physically present) support tutorials using communications tools, such as Skype is, from March 2016, subject to explicit recommendation by Needs Assessors (DSA-QAG, March 2016(a), pp. 17, 24)[3]. Once published, the guideline in question was subject to much debate, often passionate, on the email forum for members, typically specialist study skills tutors, of the Association of Dyslexia Specialists in Higher Education (ADSHE).

In order to offer a research-based response to the March guideline, a short series of questions relating to the use of communications tools, such as Skype, was appended to the wider survey, and publicised over the ADSHE email forum in June-July 2016.

In August 2016, the Department for Education published an Update containing the following statement, "We recognise that on occasion the student may wish to receive their support remotely, for example if they are on a field trip abroad, or not able to attend the usual place of delivery for a particular session." (DfE, 2016). The data in this report was gathered prior to the DfE's August update.

The lead author of this report is a qualified and registered Specialist Study Skills Tutor and Diagnostic Assessor for SpLDs and is a quality assured member of ADSHE in addition to other professional organisations. The doctoral research project is supervised by Dr John Conway, Head of Disability Services at the Royal Agricultural University

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[3] "Remote NMH support (for example over Skype) should only be provided where specifically recommended (including as an alternative) in the Needs Assessment Report."

Response Overview
Respondents by Role

Seventy-three respondents answered the survey, of whom 60 were Specialist Study Skills and 20 held multiple roles. The role distribution is summarised in Figure 1.

Figure 7: Respondents by Role
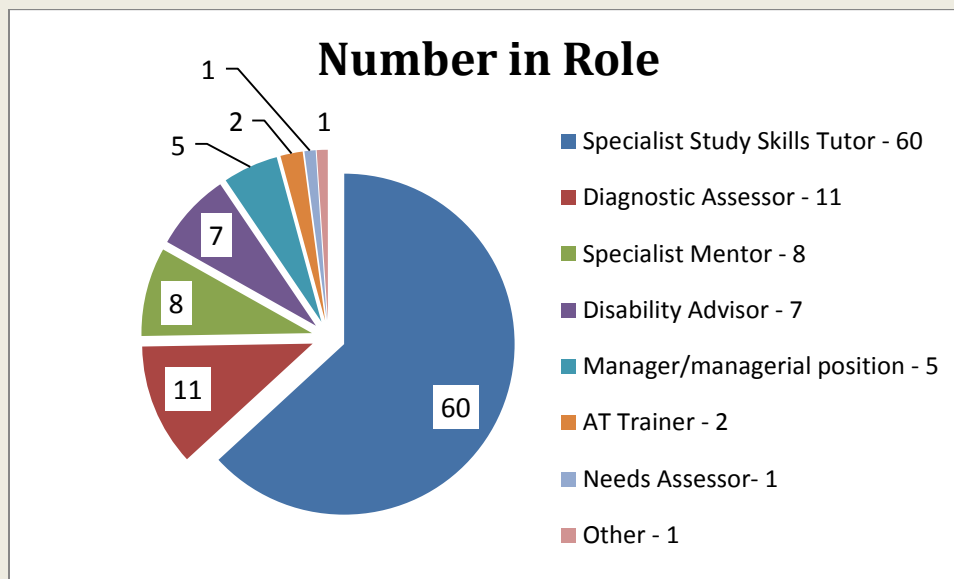
Respondents by HEI

The respondents' students studied at 94 HEIs across England, Wales and Scotland covering the full range of 'ancient' universities to those gaining their status within the last 5 years.

Respondents' Use of Remote Working Tools (RWTs)

Skype was the most used, 46 respondents; Apple's FaceTime with 7; Google Hangouts by 3; 23 respondents did not use an RWT, some used more than one. Other RWTs were mentioned, for example GoTo Meeting and Teamviewer. Other tools were cited in support of tutorials, not necessarily being used to deliver them, for example Google Docs, for sharing documents or collaboration tools such as GoConqr (sic). Figure 2 shows the distribution.

Figure 8: Use of Remote Working Tools by Respondents

Respondents Using Particular RWTs

- Other
- FaceTime
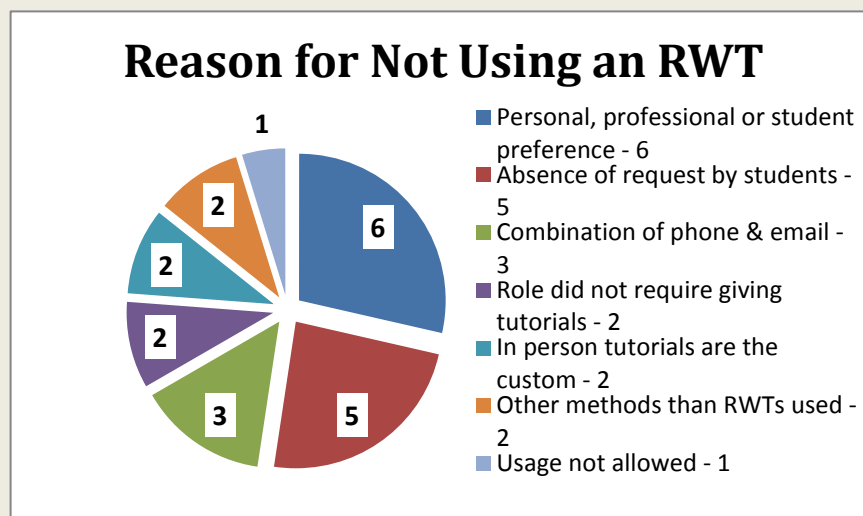- Google Hangouts
- None
- Skype
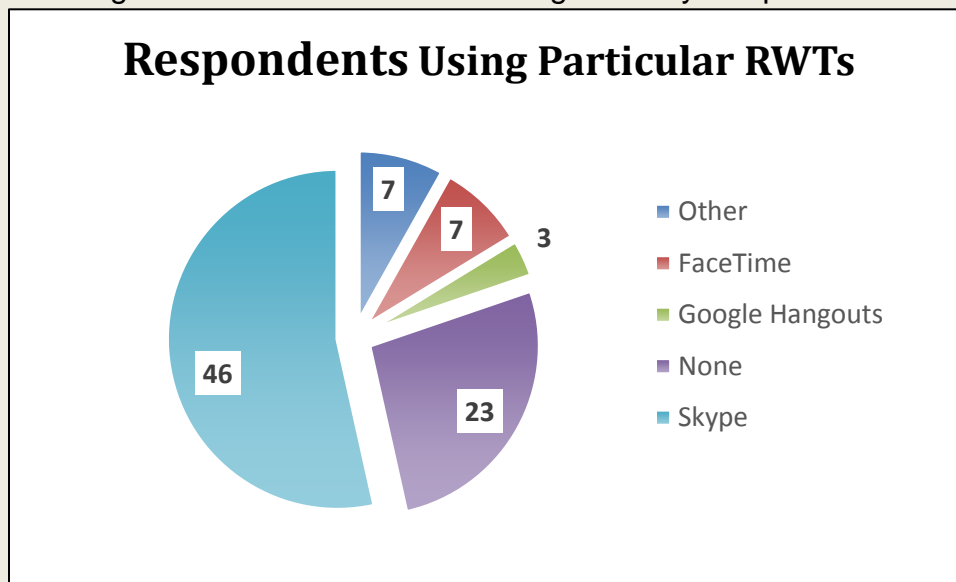
For those who had used an RWT on a frequent basis, 36 did so between 1-9 times weekly, with 2 respondents who had used an RWT 10 or more times weekly.

Respondents' Non-use of RWTs

Some respondents, 23, did not use an RWT to deliver study skills tutorials, of whom 21 explained their reasons. Personal, professional or student preference for only delivering tutorials in person was cited by 6, absence of request by students by 5 and the custom that all tutorials were in person was cited by 2. Three respondents, whilst not using the RWTs named in the survey question used a combination of phone and email support and 2 respondents' roles did not involve giving study skills tutorials. Three respondents had plans to use an RWT, given recommendation on a Needs Assessment and 1 respondent's Agency employer did not allow use of an RWT. The distribution is shown in Figure 3.

Figure 9: Reasons for Not Using RWTs

Reason for Not Using an RWT

- Personal, professional or student preference - 6
- Absence of request by students - 5
- Combination of phone & email - 3
- Role did not require giving tutorials - 2
- In person tutorials are the custom - 2
- Other methods than RWTs used - 2
- Usage not allowed - 1

Choice of Particular RWT

In choosing which particular RWT to use for a particular study skills tutorial, the 40 respondents who replied identified four main reasons which determined their selection. Tutors' own familiarity with a particular tool most frequently determined choice, with 20 responses, closely followed by their students' preference, with 18 responses. The features of the different RWTs also played a role in the choice, with 8 mentions. Finally, for 3 respondents, the particular RWT was recommended by their HEI. The reasons for using a particular RWT are shown in Figure 4

In line with the results shown in Section 2.3, above, Skype's popularity was confirmed, with all 4 reasons being cited. Skype's features, over the other RWTs, were seen as particularly useful in a study skills tutorial setting, particularly its ability to transfer files, share screens (desktops) and allow text messages from within the application itself.

Figure 10: Reasons for Using a Particular RWT

Reason for Using a Particular RWT

- Respondent preference - 20
- Student preference - 18
- Features - 8
- HEI recommendation - 3
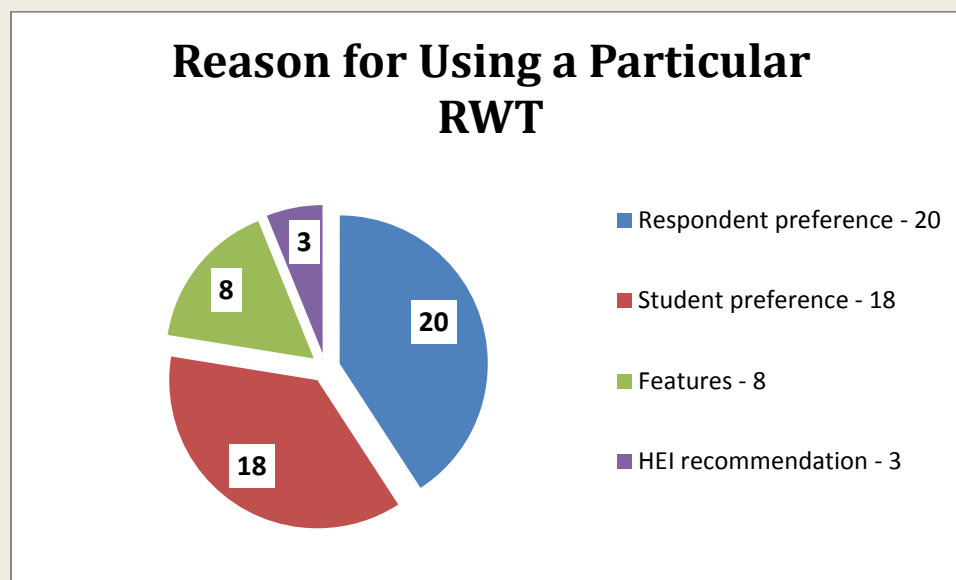
Reasons for Delivering Tutorials via a Remote Working Tool (RWT)

Overview

Respondents reported that a wide range of reasons lay behind their students wanting to access their specialist study skills tutorials using a Remote Working Tool (RWT). This range reflects the reality that each student is a unique individual whose needs must be addressed according to their circumstances, that students' lives are highly dynamic and as such can be extremely unpredictable throughout their studies – or to express it colloquially, 'stuff happens!' In these circumstances, the study skills tutor aims to

provide support continuity as identified within their professional guidelines (ADSHE, 2009, pp. 11, 12).

Respondents tell of students who are beneficiaries of the UK Government's desire to widen participation in HE (Office of Fair Access, 2016) - students with physical and mental health problems, those who have young families and those with elder-care commitments, students who live remotely from campus, students who are working full or part-time to support themselves (and their families) and those on low-incomes, those whose courses require that they attend placements remote from campus and mature students who are returning to education at HE level possibly as the first in their families to attend university. These characteristics are in addition to the reasons why the students receive DSA and specialist study skills tutorials, namely they have a disability of one form or another. Respondents frequently identify the impact of interaction between the disability and personal circumstance presented by their students' individual circumstances in creating a set of complex problems for their students.

The use of an RWT is regarded by many respondents as an effective way of avoiding the sanctions on a student if they cancel their scheduled physical tutorials at short notice which can result, after two such cancellations in issues with support continuance (DSA-QAG, March 2016(a), p. 10); (Student Loans Company, 2015). Delivering tutorials via an RWT was also mentioned as a valuable tool for providing the consistency of support envisaged under the DSA awards (ADSHE, 2009).

This section presents respondents' own comments about the use of an RWT, notably Skype, and also includes a range of students' views as supplied by respondents. The section is organised by category and is split into a narrative before being summarised in Figure 5 below.

Health Conditions
Physical Health Conditions

Respondents made a total of 7 comments about short and long term physical illnesses which caused unexpected absences from campus, potentially placing already vulnerable students who want to keep up with their work still further behind. One respondent also talked about a RWT giving the "…ability to work with a student who is not feeling well enough to attend [an on-campus session] and [which avoids the potential for] passing on an infection to me." During convalescence, students can also feel well enough to attend a tutorial delivered by an RWT but not sufficiently robust to attend on campus.

One respondent provided a graphic example of a sudden-onset physical health condition, she had "…a student who had a severe rash which had come up suddenly and who did not want to be seen by anyone" but the student received the benefit of the tutorial via an RWT.

Mental Health Conditions

Mental health conditions and their impact on students' ability to attend on-campus tutorials were mentioned in 8 comments. One clearly stated that using an RWT meant "Ease! Learners can Skype from home which has been very helpful for those with mental health conditions" and another that an RWT is "…particularly useful when there are health issues." Two respondents gave the example of students suffering from anxiety and panic attacks, "…[it is useful] for a student who has ill health/bouts of depression … and doesn't know if she's able to leave her house … due to her mental health condition/panic attacks." These conditions can be unpredictable and rapid in onset, as one respondent observed:

> "My student developed panic attacks in her 2nd year. They were completely unpredictable, sometimes she could attend in person and at other times not; the attack could develop at any point between home/uni and the tutorial. The solution was to use Skype whenever she couldn't attend. Otherwise she'd have had to cancel and then her DSA could have been taken away."

For one student, her usually well managed chronic depression turned severe, "…3 months before her exams developing into an agoraphobia and she couldn't leave her study/bedroom. We continued tutorials by Skype. The student successfully passed [all her exams over 2 years]."

Study Skills Support during Placements & Vacations

Many HE courses are structured with placements which require students to be absent from their campuses for considerable lengths of time, respondents commented 28 times on this subject. To compound the fact of their location, placements can involve shift-working or working unsocial hours. As one respondent put it, "…[the] Skype option gives greater accessibility of support [for] NHS students who can't access support otherwise due to location, shift patterns…". Another reported that "…it [is] very difficult for [student nurses] to find the time on intensive placements to come into university for a session. They are simply not around." One respondent's nursing student felt that "[w]ithout the Skype sessions I would have failed my nursing course. I could not attend the sessions on campus, or I was so tired after working then having to travel to University … I could not benefit fully."

Students can spend the full academic year abroad on exchange schemes and similar (e.g. Erasmus). For one respondent, her "[s]tudent was in Australia, so clearly Skype was the only way his support could be delivered …". One respondent noted, "I've had people in Venice, Kenya, London and Durham … so the positive aspect is that we can talk at all."

Another respondent's student reported that "…as a PhD fine art student living [abroad], but studying in [the UK] the Skype sessions have been my only option for tuition." Respondents noted that post-graduate students are generally required to work during vacations and in general are less often present on campus during term time, "[they] often have very limited time to attend tutorials on infrequent visits to university" hence tutorial delivery by an RWT can be very convenient. Post-graduate students typically are required to work out of term time, hence for those receiving study skills tutorial support those needs will also continue beyond term dates.

For undergraduate students, respondents noted that the nature of their students' learning difficulties often means they can only keep up with their courses by doing academic work during vacations and that in so doing might require study skills support during vacations as well. One respondent talked about the fact that the need for vacation support could not always be planned, "…the students couldn't predict that they'd need support during the vacations, so Skype was the only possible way of providing continuity of support."

Change in Personal Circumstances

Students' studies comprise just a part of their overall lives which are subject to life's usual vagaries as 12 of the respondents' comments illustrated.

One respondent's student was emphatic about the benefit of using Skype, it was "[l]ife changing. I could not get onto campus … I am on a part time course, am working and have two children. Before I started the Skype sessions I was thinking of giving up the course." Another SpLD student, described himself as follows, "I am a mature student and lecturer, but also have children and am working", with Danish as a first language and living there for much of the academic year the "…Skype sessions were undoubtedly beneficial" for his PhD studies.

One respondent's "…Army spouse was posted abroad for 3 years, [so] on campus tutorials were no longer an option", an RWT proved effective to deliver support thereafter. Mature students can also suffer from "…unexpected work or family problems" which means they cannot always attend on-campus tutorials. Another respondent's student had "…unpredictable childcare issues, she wouldn't know until an hour before the tutorial if she could attend." The respondent and student agreed that "…if she had to remain at home, [they] would Skype." The respondent noted that "…if

[they] hadn't [Skyped]… there would have been cancellations with consequences for DSA carrying on."

One respondent told of the student who "…had to return unexpectedly to care for [her] sick mother. This was in the run-up to her 4th year exams. Tutorial support continued by Skype. The student [came back] for the exams, which she successfully passed."

In another example of the need to find a solution very quickly for a student in need was provided by a tutor who reported, "…an ASD student this year at dissertation time - went into meltdown, but would communicate through FaceTime. We wouldn't have had time to go back and get it on to his Needs Assessment". For another student, the problems related to his marriage breakdown, "…[this] student - third year - we'd never used Skype or FaceTime - separated from his wife and all of a sudden his attendance was completely erratic - no money for petrol; car breaking down; children needing child care. We could not have coped without FaceTime." The student's tutor further commented that "I don't believe a Needs Assessor can or should be expected to, decide that a student will never need on-line support."

Individual Students' Comfort

Tutors appear highly aware of the importance of their students' comfort with 27 comments address this point. There are numerous physical arrangements required to hold a physical tutorial on-campus, these do not always go to plan. One respondent remarked, about using an RWT "…there's less to go wrong, such as [meeting] rooms double booked, queues to get into the library, transport and parking issues." One respondent referred to the need for students to be comfortable in their tutorial surroundings and reported that an RWT could help deliver this, "…being able to sit at home with all of their equipment, resources … around them…whatever they need is there…not having to travel at all … with heavy laptop … and books." Respondents mentioned that some students with ASD and mental health conditions can feel uncomfortable with having to meet in different and unfamiliar rooms which can happen at some HEIs, for them RWT tutorials were beneficial.

For a number of respondents' students, an RWT is "…useful for students who are already learning in a virtual learning environment," whilst for others being at home participating in a tutorial via an RWT can mean they can use their specially adapted furniture.

However, for some students there may be some trepidation before using an RWT "I was scared at first of trying the Skype sessions but it is the best decision I ever made." That student, a "…single mum, doing placements in hospitals and studying", found the pressure "…very demanding" and believed that Skype was "…far better than face to

face sessions on campus because I am more relaxed at home, the timings are so very flexible and I have all my books and journals at hand."

Each student's circumstance is unique, for one, "I am a single working mum, I am dyslexic, have ADHD and English is my second language" and felt "…more relaxed in my own home when I am having tuition." That student also stated "I wish I had been offered these Skype sessions much earlier in the course."

A number of respondents noted that they need to offer a quick response to both new students seeking study skills support or to reschedule existing students. Whilst finding mutually convenient times for physical tutorials can present problems, respondents noted that these are lessened when an RWT is used – many more time slots become available.

Financial Constraints

Even when all else appears to be organised for an on-campus tutorial, matters might not be straightforward as "…students … have found they could not afford to travel to the tutorial at the last minute." Three respondents mentioned this issue and how using an RWT can avoid it.

Time Availability, Travel & Employment

This issue was the most commented upon with 41 responses.

Depending on their students' courses, respondents commented that tutees' timetables can be densely packed resulting in them finding it difficult to attend study skills tutorials on campus. For those students with SpLDs "…already have significant time pressure" because their disability can already reduce their organisational abilities and require them to work long hours to keep up; an RWT can offer extended access to support in these circumstances.

Numerous respondents talked about RWTs meaning that there was "…no wasted time travelling" and that they were a "…fantastic contingency when bad weather threatens my [or my students'] travel," in which case "…the session doesn't need to be missed."

Respondents noted that students are often in employment and so have limited time on campus in general and specifically at a mutually convenient time with their study skills tutor. Additionally, for vocational courses, patterns of shift-work can also mean attendance on campus is a problem

Respondents aim to schedule tutorials at convenient times for their students, "…learners can choose a time which suits them. I have found a lot of my learners like 8pm". However, such times might not be possible for the tutor, campus premises might not be available at that time and such a time brings with it safeguarding issues (DSA-

QAG, March 2016(a)). Respondents noted that using an RWT avoided many timetabling issues.

Lifestyle and other technology usage

Respondents identified this category in 9 comments. Respondents also mentioned, *inter alia,* that Student Finance England (SFE), through its DSA, supports the use of technology to help students become "independent learners" (ADSHE, 2009, p. 12) and that in the current economic climate the use of 'freeware', such as RWTs is highly encouraged. Additionally, respondents mentioned that their students live their social lives in the technological world of electronic communication tools and are increasingly comfortable with them. Hence, respondents observed that placing the use of RWT technology behind an excluding barrier except in the case of explicit recommendation made little sense.

Figure 11: Reason for Using RWTs
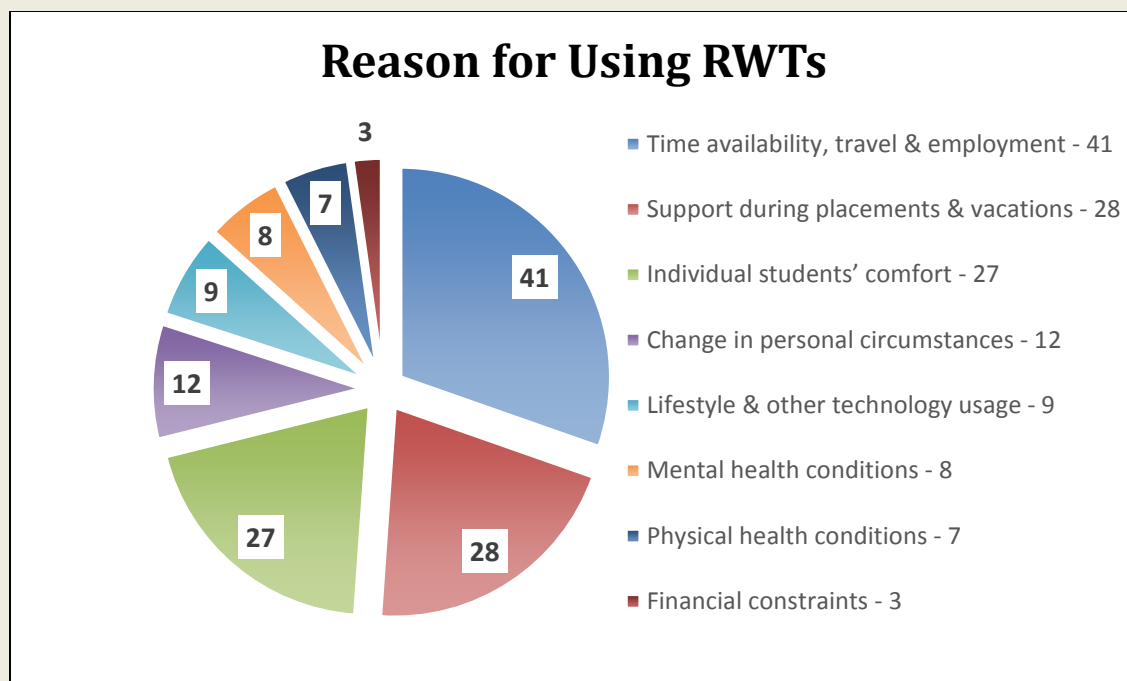
Drawbacks to Using a Remote Working Tool (RWT)

Of the total 73 respondents, 45 commented on drawbacks to using an RWT. Comments related largely to the specific RWT technology, Skype, as it was the most frequently used RWT tool, see S2.3.

Respondents reported that they had experienced a number of drawbacks in using an RWT divided broadly into generic and individual student specific issues. Generic issues further subdivided into those relating in some way to technology and those relating to the study skills support function. Individual student specific issues also subdivided into two categories, again technology and the study skills support function.

Generic Issues
Technology

When both video and audio signal are delivered as part of the RWT, for example with Skype and FaceTime, respondents reported some problems with the quality of the image and the sound, pixilation[4] or jumping in the former and distortion or gaps in the latter, "Skype sometimes has less good quality pictures and sound" and it "…can be distracting for a learner when there is a delay in the sound/image." Respondents ascribed these problems generally to the speed of the Internet connection, whether that be the local WiFI network or the Wide Area Network. In extreme cases, respondents mentioned that the connection could be lost, requiring an occasional redial or reversion to using the telephone. Whilst 16 respondents mentioned these issues, there was no sense that they happened all the time, one respondent reported they were "rare" nor that their occurrence made the long-term use of the RWT unworkable. A number of respondents reported that they had back-up plans agreed with their students in case of problems.

A number of RWTs, eg Skype, Google Hangouts, also include the ability to send files between parties, swap textual information (including website addresses) – no problems were reported with these functions.

The Study Skills Support Function

Respondents expressed the importance of creating rapport with students, in order to build confidence and motivation (ADSHE, 2009, p. 10), and how creating rapport in a 'virtual' environment was both different and could be more difficult than when seeing students in person. Respondents also referred to the need for study skills tutors to use multi-sensory methods to deliver effective support (ADSHE, 2009, p. 2) and the challenge in doing so when using an RWT, one respondent stated that "Skype restricts my ability to … use specific visual and kinaesthetic channels within a physical environment to reframe and express their thoughts." Using an RWT was seen by some as making more difficult certain fundamental aspects of delivering study skills support, for example, reviewing materials which students have originated, annotating those documents and other materials printed during tutorials plus demonstrating study skills techniques. One respondent commented, "[i]t is more difficult to scaffold them to show

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[4] Pixilation: When the picture breaks up/distorts into visible rectangular/square blocks.

them a new way of working. However, a number of respondents said that they had developed effective alternative processes to handle these aspects of support, for example, "…you can share screen so they can see me doing something then I can see them". Nevertheless, as this respondent continued, "…this does lack the flexibility of working face to face. Also, when you do this you can't see how hard they are trying or their expressions as easily. They may say they understand but they may not really."

Several respondents commented upon the importance of being able to show students how to "…build/scaffold ideas" element by element, or complete planners/diaries; they felt these activities were made more difficult using an RWT than in person.

Individual Student Specific Issues
Technology

Students overall were reported as using a variety of computers with which to access the RWT in terms of their age, speed and reliability, resulting in variable results when using an RWT. Where there is use of both video and audio in the RWT, less powerful units were reported as giving problems. Lack of reliability was also mentioned as a potential limiting factor in using an RWT, for example, "[w]hen things go wrong with the Skype technology [it] can be due to an older computer or poor microphone…". In this latter case, for example, the tutor simply recommended the purchase of a low-cost replacement. Some students were reported as wary, at least initially, of the technology; reasons given were due to unfamiliarity with the RWT, previous poor experiences or difficulty in general with technology.

The Study Skills Support Function

A number of respondents felt that some students respond less well in an RWT environment, for example those with ASD or other communications difficulties, however, at least one respondent thought that her ASD students preferred an RWT tutorial to one in person. Reading a student's body language, gauging a student's reaction and communicating with a reticent student were mentioned as issues. A number of respondents mentioned that their students could also be distracted if they were using their RWT in their home environment and that an RWT did not deliver "…holistic communication and personal contact." One respondent mentioned the problem of RWTs for students with visual stress issues and other issues which can affect comprehension when using computer screens.

Strategies in Response to Drawbacks in using RWTs

Respondents identified strategies for handling drawbacks in using an RWT which represented pragmatic responses to individual situations respondents had experienced

and were not intended to be universal panaceas. These solutions were a 'bonus' as the survey had not requested solutions be identified.

Respondents further identified a small number of generic technology issues they had experienced with RWTs, for example loss of synchronisation between audio and video, pixelated or jumpy video, distorted sound or loss of connection. There were a number of practical work-a-rounds suggested, turning video off temporarily, redialling the connection, using a cable connection to the network rather than a wireless one, having an agreed backup of a mobile phone or landline and finally, *in extremis*, rescheduling at a different time or location(s).

Generic support-specific issues were also reported, such as a greater difficulty building rapport over an RWT, difficulties demonstrating certain study skills techniques including multisensory ones, annotating documents. Additionally, there was the practical issue of obtaining a signed timesheet for the tutorials. Respondents met these issues by meeting students initially in person to establish rapport, using a different process for working on documents when using an RWT, and using, particularly Skype's ability to 'share screens'.

Individual students were also reported as presenting with their own technical issues, such as old or poorly working hardware such as microphones and speakers or possibly a wariness of technology in general. Work-a-rounds included offering students a 30-minute trial RWT, students work with their HEI's IT support to eliminate/ameliorate problems or help them gain confidence.

Respondents also described situations where, for example, a student on the Autistic Spectrum, who might also have difficulty in communicating with the tutor, might fare even less well when using an RWT. RWTs, for example, make body language even harder to determine and being screen-based could worsen visual stress over the course of an hour-long RWT-based tutorial. The environment at the student's 'end' of the RWT was not controllable by the tutor and could be distracting for the student, for example if they were located in an open library environment. Solutions offered by respondents again included a 30-minute taster session and meeting students initially on campus to establish rapport.

Do Physical Tutorials in a Room Together Always Work?

In total 46 responses addressed this question. In some respects, the reasons why physical tutorials do not always work correlate to the main reasons why an RWT is seen as an effective tool, see Section 3.

For 15 respondents, there were no circumstances in which physical tutorials did not work. A small number commented that their students had never requested a tutorial

using an RWT and a small number mentioned that when an RWT had been suggested students' preference had been for a physical tutorial. However, one respondent who replied "Never – it's better in my opinion [to have a physical tutorial]" conceded, "BUT (sic) when location/health condition is an issue then Skype is valuable alternative."

For 13 respondents, their students' unexpected inability to travel to physical tutorials meant that on-campus tutorials did not always work, for example. As identified in Section 3, above, there is much that is unexpected in students' lives, such as short and long-term illness, issues with anxiety, financial problems and family commitments. Additionally, there were 4 mentions of students' timetabling and requests for tutoring at unsocial hours resulting in physical tutorials not working.

Students' need for support during placements and vacations was cited 11 times as a reason why physical tutorials did not always work, for example "…likewise during holiday periods students with childcare needs struggle to attend." Respondents also reiterated post-graduate students' need contractually to continue their academic work during vacations, when either they and/or their study skills tutor are absent from campus, or campus is not open.

Seven respondents mentioned that the meeting rooms and IT environment provided by their HEIs were not appropriate to delivering tutorials in a space which was free from distractions and ensured confidentiality. There were 4 respondents who mentioned that during a physical tutorial, the proximity between tutor and student could lead to anxiety in some of their tutees which led to unsuccessful tutorials.

Comments on the DSA-QAG Guideline regarding the use of Remote Working Tools (RWTs)

Respondents were asked to comment, by giving Pros and Cons, on the March 2016 DSA-QAG guidelines stating that "Remote NMH support" can only be used to deliver tutorials if it has been specifically recommended by a Needs Assessor, Skype being specifically mentioned by DSA-QAG by way of example, (DSA-QAG, March 2016(a), p. 17). In this report, "Remote NMH support" is referred to as 'using an RWT'.

Some 64 respondents gave input. The number of comments against the guideline far outweighed those for it, by 60 to 9, with the majority of respondents unable to see any Pros at all although a small number could see both Pros and Cons [hence 69 comments from 64 respondents].

No respondent identified a statement from the DSA-QAG or the Department for Education (formerly the Department for Business Innovation & Skills, BIS) which justified the guideline, indeed many respondents expressed bewilderment regarding the guideline's rationale.

Comments in Favour of the Guideline

Of the comments favouring the guideline, 3 referred to the idea that it would help ensure that students were not pushed into using an RWT. Additionally, there were 3 responses supporting the idea that the process, of referring back to Needs Assessors to request that an RWT be included in a [reissued] Needs Assessment, would work. A further 2 responses felt that the need explicitly to recommend an RWT would ensure that the position of physical tutorials would be enhanced.
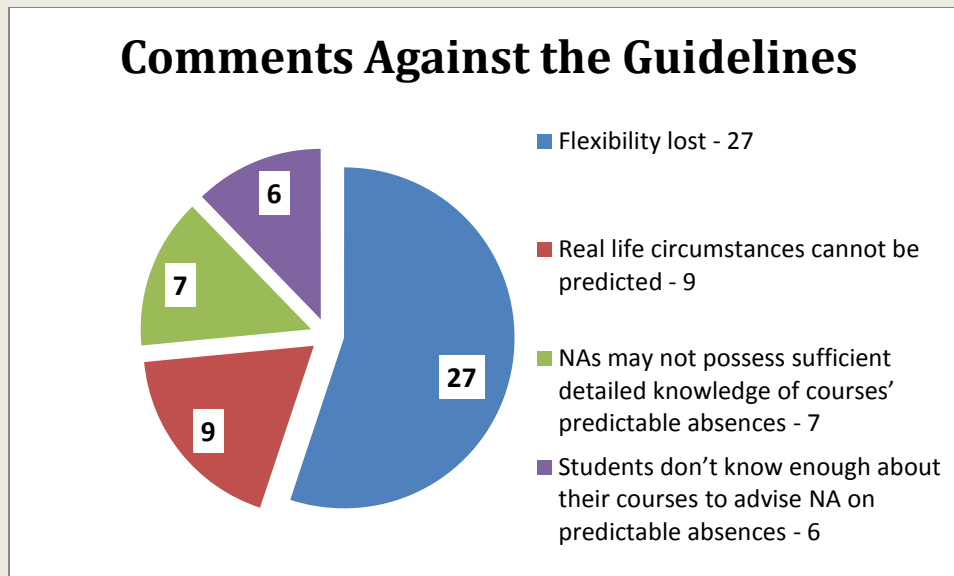
Comments Against the Guideline

Loss of flexibility, in general, and associated inability to deliver student-centred support were the primary negative factors reported in 27 comments. Additionally, a further 9 respondents observed that the guideline took no account of the real lives which students lead in which 'things happen' unexpectedly; as one respondent put it, "Needs Assessors are not clairvoyant." A further 7 also worried that Needs Assessors require, but may not possess, sufficient detailed knowledge of the students' courses to cater even for predictable absences from campus due to placements, study abroad and field work.

Respondents clearly acknowledged that Needs Assessors discuss course requirements with the students during the Needs Assessment, however 6 respondents were concerned that some students, particularly those with SpLDs who, in many cases, have difficulty in understanding or memorising such matters, would not be able to inform the Needs Assessor of such absences. A lack of knowledge in both student and Needs Assessor of the potential benefits of using an RWT was also a cause for concern in terms of both predictable and unpredictable absences from Campus.

The perception that the guideline removed student choice was referred to in 5 comments and a further 2 comments suggested that the choice should not be exclusive between be Skype or physical tutorials but a blended approach to suit the student, allowing for discretion between the student and study skills tutor.

Respondents, in 6 comments, felt that the guideline could impose a delay or break in support for students in need, referring especially to situations where unpredictable campus absences already cause significant anxiety which would be added to by any delay in receiving tutorials by an RWT. Additionally, respondents were concerned regarding the additional workload and costs on Needs Assessors when they [Needs Assessors] are asked to revise an assessment report written some years beforehand. These results are summarised in Figure 6.

Figure 12: Comments Against the Guideline

Comments Against the Guidelines

- Flexibility lost - 27
- Real life circumstances cannot be predicted - 9
- NAs may not possess sufficient detailed knowledge of courses' predictable absences - 7
- Students don't know enough about their courses to advise NA on predictable absences - 6

Literature Review

There is little research analysing the effectiveness of RWTs, or specific products such as Skype, in a one-to-one HE environment. Nevertheless, Skype is given a favourable report as a tool for enabling classroom participation across geography, for example 'bringing' guest speakers from distant locations 'into' the classroom or widening participation between students located in different countries and continents (Doe, 2013).

A study involving the use of Skype and a screen-capture tool (Jing) measured the effect of these two technology tools on completing a series of accounting software simulations, Netsuite (Charron & Raschke, 2014). This research extended the use of equivalency theory (Keegan, 1996); (Simonson, et al., 1999) which "recognizes that the method of attaining the knowledge may be different but the learning outcomes should be equivalent" from use with distance learning to comparing the effect of a virtual instructor to that of an in-person instructor (p.1). Specifically, Skype, and its screen-capture capability, was used to allow students virtual access to an instructor during scheduled office hours and reported that "virtual instructor support is equally effective as in-person support" (p.1, p.4). The authors report two significant advantages of delivering the assignments using Jing and Skype, first that students do not need to have a laptop (which they would need if visiting their instructor in person), so benefitting those who have only desktop units, second that "it allows the student to work on or off campus at a time convenient to them" (p.5)

An evaluation of video-technology in education involved the use of 'tablet' computers which gave access to video-based learning together with a video-conferencing tool in a project where junior medical students in Malaysia were paired with senior medical students in the UK (O'Donovan & Maruthappu, 2015). The authors reported that a

strong rapport was achieved between the peer-learners and peer tutors using the video-conferencing tool, especially with respect to improvements in their abilities in clinical examination; this despite some reservations about poor screen resolution, which would likely be important in the learners' appreciation of clinical skills.

More widely, a body of literature exists regarding the use of technology generally in the HE classroom. For example, technology-enriched learning environments are seen as motivating students and yielding enhanced learning (Dabbagh & Kitsantas, 2009). However, 'faculty' can erect barriers to the use of technology, possibly due to perceptions that using web-based tools is of inferior quality compared to face-to-face instruction and/or lack of awareness of the possibilities offered by technology (Flowers, 2001); note, though, that this research was published in 2001 and technology awareness amongst teaching staff may now be higher. Data indicates 300 million active Skype users monthly (DMR, 2017) and 15-20 million FaceTime users daily (Macrumours, 2014) Additionally, numerous videos explaining RWT usage exist online, for example in YouTube, as well as in more traditional document form, for example Dupree (2012) who describes Skype usage in an education setting.

Within the DSA itself, Assistive Technology has been fully recognised, and acknowledged by Government, as an integral part of the package to support learners with SpLDs (BIS, 2014). Increasingly, HEIs are implementing technology across campuses to the benefit of all students, for example, using lecture capture technology which spans not only lecture theatre delivery, but the creation of video and multi-media material from the lecturer's laptop, tablet, even smartphone (Kandler & Thorley, 2016). Interestingly, the authors identify benefits for using lecture capture which are identical to those identified in this research, notably accessibility beyond normal hours, during illness, hospitalisation and less need to be on campus (p.3).

Discussion

A significant majority of respondents demonstrated that many of their students derive significant benefits from receiving some or all of their study skills tutorials via an RWT, notably Skype. The trend of widening diversity amongst students, the existence of many courses requiring long term absences from campus, the numbers of postgraduate students, the growth of mental health problems, the unpredictable nature of students' lives interacting with their disabilities combine to make obsolete the idea of just offering on-campus tutorials.

On the other hand, a small number of respondents reported that the use of an RWT does not suit all students, for example where the tool might exacerbate a disability, and can make more difficult the delivery of multisensory tutorials or get in the way of developing rapport. Several respondents felt that a decision to use an RWT should be at a student's choice and not at tutor preference.

Regarding the guideline that Remote NMH support tutorials can only be delivered if they are explicitly recommended by a Needs Assessor, respondents were worried for five reasons. First, they were bewildered by the guideline's logic, believing that the choice of delivery should lie in a decision between student and tutor, based on student need at the time and the tutor's professional judgement. Second, respondents were surprised that there had apparently been no communication, still less consultation with practitioners prior to the guideline's issue. Third, respondents were concerned that Needs Assessors might not have the knowledge of how RWTs could benefit students, nor possess clairvoyance to see unpredictable future needs, nor have the time nor budget to reissue Needs Assessment reports long after their original issue. Fourth, the thrust of SFE's strategy is to encourage the use of technology to deliver Inclusive Learning Environments, 'banning' a specific type of technology which is shown to be beneficial appears significantly retrograde. Lastly, respondents felt that requiring explicit recommendation to use a technological solution was unreasonable given the increasing use of technology by students and their comfort with it. The tutor response is driven by the professional guideline to "ensure that all sessions are student-centred with the flexibility to work with students on what is most urgent" (ADSHE, 2009, p. 13).

In its August 2016 communication, the DfE explicitly states that "We recognise that on occasion the student may wish to receive their support remotely, for example if they are on a field trip abroad, or not able to attend the usual place of delivery for a particular session" (DfE, 2016). In the context of this investigation this is a welcome step forward, however, it still appears to underestimate the actual variability in many students' lives as evidenced in general by the volume of comments presented by respondents in Section 3, but in particular the prevalence of placements, continuing with academic work during vacations and whilst studying abroad.

However, in the November 2016 revision of the DSA-QAG's Quality Assurance Framework, §2.4, the prohibition of the use of Skype for the delivery of remote NMH unless specifically recommended by a Needs Assessor is again stated without any waiver for "occasional use", which appears a retrograde step (DSA-QAG, 2016 (c)). To the author's knowledge DSA-QAG has not provided an official justification for the prohibition.

Conclusion

The conclusions of this investigation are that:

1. There is a demonstrated need by numerous students in receipt of DSA for remote NMH support using RWTs. See Section 3.
2. The Remote NMH support which RWTs enable, is too effective to place behind what is seen as a significant barrier, the explicit recommendation by Needs Assessors. See Section 7.2.
3. RWTs promote inclusivity, disallowing them therefore promotes discrimination. See Section 3.
4. Needs Assessors should be assisted in understanding the benefits of RWTs so that they can feel confident in recommending their usage for delivering Remote NMH more widely. See Section 7.2.
5. Needs Assessment Reports should, at the least, include mention of the possibility of Remote NMH support by RWT, but that the final discretion and exercise of choice lies with the student. See Section 7.2.
6. Study Skills tutors should be assisted in their understanding of the benefits and cautions in delivering Remote NMH support using RWTs and the best practice in RWTs' operation. See Section 5.

Recommendations

Assuming that the guideline remains in place, the following is recommended as a way of ensuring that all students have the opportunity of benefitting from the use of an RWT whilst providing safeguards around tutors suggesting its use:

1. Diagnostic Assessors are encouraged to include in their reports the possibility of delivering study skills tutorials via an RWT.
2. All Needs Assessment reports to include the possibility of tutorial delivery via an RWT together with:
   a. A statement that the choice of using an RWT remains with the student.
   b. Examples of students' needs which RWTs can answer.
   c. Examples of RWTs which might be used.
3. Access Centres brief, through CPD, their existing and all new Needs Assessors on the ways in which RWTs can benefit students with disabilities and the potential cautions of their use.
4. Study Skills Tutors' professional organisations run CPD workshops addressing RWTs' potential benefits, etiquette, cautions in their use and good practice examples of their operational use in tutorial settings. The workshops could be supplemented by the professional organisations adopting codes of practice.
5. A follow-up piece of research is conducted a year after these recommendations are implemented to assess progress in RWT usage, operation and results for students.

6. Research is also carried out to gather the students' views on RWT usage to deliver study skills tutorials.

Definitions

Term	Definition
ADSHE	Association of Dyslexia Specialists in HE
BIS	Department for Business Innovation & Skills (the HE related areas of which have moved to the DfE as from July 2016)
DfE	Department for Education
DSA	Disabled Students' Allowances
DSA-QAG	Disabled Students' Allowances-Quality Assurance Group, a charity which works with part of the Department for Education (DfE), formerly within the Department of Business Innovation and Skills, BIS), and other parties in the "to continuously make improvements for disabled students attending Higher Education institutions during the needs assessment process and the receipt of equipment and services in line with the Quality Assurance Framework (QAF) and the Disabled Students' Allowances (DSAs)." (DSA-QAG, 2016(b))
FaceTime	FaceTime is a [free] Apple application that allows users to video chat over the Internet. (TechTarget, 2016(b)).
GoConqr	GoConqr is a [free] personal learning environment that allows students & teachers to create, discover and share learning resources. (GoConqr, 2016)
Google Docs	Google Docs is a free Web-based application in which documents and spreadsheets can be created, edited, shared and stored online. (TechTarget, 2016(e))
Google Hangouts	Google Hangouts is a [free] unified communications service that allows members to initiate and participate in text, voice or video chats, either one-on-one or in a group. (TechTarget, 2016(c)).
GoTo Meeting	A virtual meeting room … which allows a meeting organizer to invite attendees from disparate geographical locations to collaborate in real time over the Internet. (TechTarget, 2016(d)). [GoTo Meeting for up to 3 people is a free service]
Remote NMH support	The term used by DSA-QAG to describe a specialist study skills tutorial delivered using an RWT (DSA-QAG, March 2016(a), p. 17)
RWT	Remote Working Tool – author's generic term for technology which enables parties to collaborate at a distance typically using video, audio, text messaging and file exchange.
Skype	Skype enables [free] file transfers, texting, video chat and videoconferencing. (TechTarget, 2016(a))

SpLDs	Specific Learning Difficulties, eg dyslexia, dyspraxia, ADHD
SFE	Student Finance England
Teamviewer	Subscription-based online meeting, file sharing, screen sharing application. (TeamViewer, 2016)

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ADSHE

THE specialist organisation **FOR** specialist tutors in the higher education section.

We provide

- professional membership eligible for NMH QAG
- professional indemnity insurance [members only]
- specialist training and CPD events.
- a professional development day [members only] every September in the London area repeated in the north of England in January
- regional group meetings
- a members' only discussion forum
- an annual conference every June which gives all members an opportunity to meet, share ideas and concerns, and to attend a number of specialist workshops
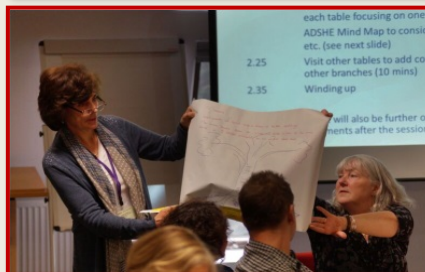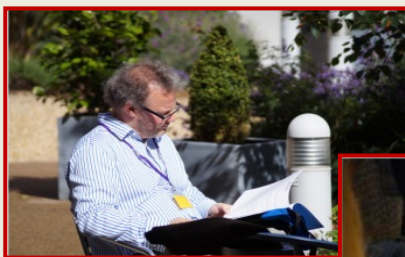
We also work closely with other organisations in the HE / DSA sector to ensure that high quality standards apply to support for dyslexic students, that the role of a dyslexia tutor is fully understood by policy makers and funding bodies, and we work with organisations representing Access Centres and Needs Assessors to ensure that the latest strategies for student learning and assistive technology are understood by all. ADSHE is represented on a number of high level groups in the sector.