An evidence-based approach to re-engaging students by re-framing support for success

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Abstract

Improving student retention and engagement is a high priority for the sector. This study presents an approach adopted within a large Academic School to re-engage students who might otherwise have been withdrawn from the system. The work presented contributes useful knowledge in two areas: firstly, in recognising the potential of re-engagement using a connected triage approach (forming effective partnerships between the student, the academic team and central guidance). Secondly, it found that 68% of students identified at potential risk of withdrawal had multiple intersections of protected characteristics. The three highest characteristics were found to be non-traditional entry qualifications, students with traditionally low participation rates (Polar 4 quintiles 1&2) and students from the most deprived neighbourhoods (IMD quintiles 1&2). The work conducted in this study enables at risk students to be identified earlier; hence affording more targeted support plans to be put in place to support their learning journey when appropriate.

Keywords: retention, engagement, withdrawal, evidence-based research, protected characteristics

Introduction

Improving student retention and engagement is a high priority for the higher education sector. This study presents an approach adopted within a large Academic School (Creative Arts and Engineering) to re-engage students who might otherwise have been withdrawn from the system. Through exploring effective mechanisms for enhancing engagement, non-engaging students were provided with individual support packages to enable successful re-engagement with their academic studies. The study used an evidence based approach adopting mixed methods data collection. Through merging datasets, a full and complete understanding of the characteristics of the students deemed to be at risk was formulated. This merger of methods helped establish a more cohesive understanding of the impact of supportive interventions through combining evidence of student re-engagement alongside changing institutional culture in response.

The work presented in this paper contributes useful knowledge in two areas: firstly, in recognising the potential of re-engagement using a connected triage approach (forming effective partnerships between the student, the academic team and central guidance). Secondly, it found that over 68% of students identified at potential risk of withdrawal had multiple intersections of protected characteristics (three or above). Protected characteristics were based on age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation as defined by the Equality Act 2010 and prior educational experience. The three highest characteristics were found to be: a) non-traditional entry qualifications, b) students with traditionally low participation rates such as Polar 4 quintiles 1&2 (this measure looks at how likely young people are to participate in higher education across the UK, quintile one shows the lowest rate of participation, and c) students from the most deprived neighbourhoods (as defined by The English index of multiple deprivation [IMD], the higher the rank the more deprived the area is). The work conducted in this study enables at risk students to

be identified earlier; hence affording more targeted support plans to be put in place to support their learning journey when appropriate.

Background

Staffordshire University is a modern, relevant and vocationally-inspired institution based in Stoke-on-Trent in the North of England UK (OfS, 2020). It is a Post 92 university with a strong regional heritage and international outlook. Graduates of Staffordshire are prepared for a wide range of employment opportunities across a diverse range of sectors. Similar to many Post 92 institutions, at the heart of the strategy lies a strong commitment to access, participation and supporting student success. The University's connected strategy places students at the forefront of all activity. The portfolio of courses and subject mix is balanced to attract and support under-represented groups in the communities that Staffordshire serves (Strategic Plan, 2020-30). In 2019-2020 28% of our students were drawn from Stoke-on-Trent, where 30.2% of neighbourhoods have an index of multiple deprivation (IMD) of 1 (which represents the most deprived 10% of neighbourhoods nationally) (OfS, 2020). This places the Stoke-on-Trent local authority as the 12th most regionally deprived area in England (IMD, 2019). A primary characteristic shared by areas classified as deprived (those in the lowest 20 IMD) is low participation in further and higher education. This can be aligned to Staffordshire University, where there is a high percentage of students who are first generation at university (51%), often continuing to live at home and commuting to the campus for study. At Staffordshire University, 56% are commuter students, approximately 50% are from areas of low participation in HE (Polar 4, Quintiles 1&2 – traditionally areas with low participation) and approximately 50% are mature students entering study often after a significant break in formal education. In recognition of some of these challenges, the University developed a comprehensive Access and Participation Plan, which forms part of the regulatory requirement to enhance access to Higher Education for those with

potential to benefit. This encompasses a range of strategies to support some of our most vulnerable students (OfS, 2020).

It is widely accepted that success is often skewed to those students with a privileged background; hence, students from disadvantaged backgrounds are more likely to face challenges within the education system and are at much higher risk of dropping out of University (Thomas, 2012; Lee, 2017; Donnelly and Gamsu, 2018). Factors such as student background, income, and low levels of socio-emotional intelligence all contribute to high numbers of students leaving the global higher education system (Staiculescu and Richiteanu, 2018). At some institutions up to 18% of students leave University before completing their first year of study (Lee, 2017; Debut Careers, 2023). This represents significant loss of opportunity, through economic consequences for the student and for society, in relation to debt, lifetime earnings, human capital, and community belonging, which Thomas et al. (2017) and Thomas (2012), linked to happier and healthier citizens. These influential reports produced for the sector advocated a mainstream approach to improving retention, progression and completion. They identified that increasing belonging and engagement leads to higher success rates, better retention and increase satisfaction.

It was acknowledged in Staffordshire University's Access and Participation Plan (OfS, 2020) that they have a higher (compared to national average) number of students with multiple intersections of underrepresentation (characteristics including: areas with low HE participation rates, high IMD, mature, ethnic minority and disability). Staffordshire University supports students entering higher education with non-traditional qualification, and whom are disproportionately represented in characteristics of being mature and/or BAME (Black and Asian, minority ethic) when compared with the national student population. Furthermore there is also a higher number 19% (national average 13.4%) of full-time students studying with disabilities (OfS, 2020). All the above statistics are deemed positive aligning with the Staffordshire University's mission: "we are the connected university dedicated to your success – putting our students first." One of the key institutional targets is to close the BAME awarding gap which has been at over 30% for the last three years.

This in itself is a two-fold challenge, primary due to the low numbers of BAME students in some disciplines which skew the data and secondly due to the multiple intersections of underrepresentation. Many of our BAME students are also from some of the most deprived areas in the UK and continue to study from home during studies and might not be participating in the wider higher education experience. For many reasons (often complex) engagement, attendance, retention and progression continues to be a challenge for this group.

Staffordshire University brands itself as "The Connected University", by definition part of connectedness is relationship building with others. It was acknowledged by Thomas (2012) that connectedness is driven by individual need, and some individuals need more contact than others in order to succeed (Kelly, 2001). It was concluded in Thomas et al.'s follow-up study (2017) that a key factor influencing successful outcomes in terms of retention (satisfaction and academic achievement) was engagement in the wider higher educational experience, and therefore, a connected approach is essential to develop a strong sense of belonging. Thus, engagement (at least in-part) can be linked to the amount of effort focused towards academic activity related to their course of study (Osterman, 2000; Kuh, 2009; Trowler and Trowler, 2010) in context to their wider engagement with the HE experience (Krause, 2011; Thomas, 2012; Thomas et al., 2017). Students that live at home and commute for study (many of which are from non-traditional HE backgrounds), are less likely to engage in the wider HE experience (often turning to family for support rather than the professional services within a university, which are better placed to assist at crisis points in study). It is these students by very definition that are at higher risk of non-completion. It is therefore the responsibility of the institution to explore effective mechanisms for enhancing engagement within study and have effective support processes in place to ensure every student reaches their full potential at all stages of their learning journey.

Scope of Project

It has been well documented that developing a sense of belonging and engagement contributes to better retention (Thomas, 2012; Thomas et al., 2017). Different metrics can be used as proxy indicators of retention, for example attendance (at module/course level), progression (meeting the learning outcomes of a specific level of study) and completion (reaching the learning objectives of the course) can be tracked. Retention for the purpose of this study is defined as "a student not withdrawing/suspending throughout the year of study in which they are enrolled." Furthermore, engagement in the work presented is measured solely though attendance, whist it is accepted that attendance is a controversial measure it is also acknowledged that there is an association generally between attendance and academic success (Power, 2007, 2010, 2012; Newman-Ford, L. et al., 2008; Kim et al., 2020).

Attendance polies vary considerably within UK higher education, but all universities have the power to withdraw students from studies for low/no engagement. At Staffordshire University formal attendance monitoring during 2019-2020 occurred at two key points in the academic calendar (Oct/Nov and Jan/Feb). Any students perceived to be not engaging within timetabled classes at these points were given a period of notice to contact the university before a decision was made regarding continuation of studies - this was internally known as raising a "cause for concern" (Staffordshire University, 2018).

It was found that a large number of students within one academic school (96 in total) were issued with a cause for concern letter for non-engagement within academic year 2018-2019. It can be ascertained that this resulted in 37 withdrawals, of which 17 students appealed the decision and were reinstated (i.e. 46% of appeals were upheld and students reinstated). Most of these occurred in the second semester. For practice based subjects, this presented challenges in terms of how to re-engage students into lab, studio, workshops and seminar based activity, without jeopardising the learning of those that had attended regularly. Often in creative

subjects team working is essential to the learning process. For instance in Drama rehearsals had continued and roles shifted to enable the 'show to go on'. The School took up this challenge and began exploring contrasting options with individual Academic Departments. We addressed how we might flip the model to one premised upon earlier intervention of a supportive nature, rather than via a retrospective plan to re-engage after substantial absences.

This paper presents the results of a study which uses an alternative procedure from Staffordshire University known commonly as "Fitness to Study" to re-engage students that are deemed as not attending but whom have had some engagement and still wished to advance their studies. This tips the model from effectively being a withdrawal procedure (based on attendance) to a pro-active process involving all stakeholders (student, academic and guidance officer) which aims to create a joined-up support package focused at an early re-engagement stage (thus, supporting the connected approach and developing a stronger sense of belonging and learning community at the earliest opportunity).

The fitness to study process was selected on the basis that the Academic School (Creative Arts and Engineering) wanted to work in partnership with the individual student to ensure the right behaviours are encouraged for study and, most importantly, success on the academic programme. An essential behaviour identified as a key contributor to successful study is attendance and engagement with the academic programme, personal tutoring and peers. It is recognised that there is a strong association with students who attend (actively participating) and go on to succeed in their studies. Furthermore, it is acknowledged that the reasons for non-engagement (lack of attendance) can be complex and by working with the key stakeholders a proactive approach can be taken, leading to the development of an individual study plan to assist students in earlier stages and to provide sustained re-engagement. This paper presents a pilot study of the Fitness to Study project across a School of approximately 2500 students for the academic year 2019-2020.

Methodology

The study was formed on the principle of evidence based research and adopted a mixed methods data collection approach, integrating both quantitative and qualitative research (Corbin and Strauss, 2008). This merger of methods was considered appropriate as it helped to establish a more cohesive understanding of the impact of the intervention (fitness to study) by combining evidence of successful student re-engagement through changing institutional culture and in responding to complexities faced by many students (see also de Souza Santos, 2010). The work presented in this paper is the analysis of the quantitative data, which is split into five phases: initially, the number of students deemed at risk of withdrawal at two critical points in an academic year are identified. The second and third phases report on the outcome of the Fitness to Study scheme in terms of successful re-engagement and correlates the data with retention figures after summer exam-boards to determine impact. The fourth phase explores at risk students in terms of key characteristics established in the Access and Participation Plan (e.g. disabled, BAME, male, mature, IMD, non-traditional qualifications, Polar4 and care leavers). Please note that the qualitative stage of the research analysis is to be presented in a separate publication, and that paper synthesises the experiences of some key stakeholder groups; namely academic staff and support staff through focus group interviews to help determine impact from support and implementation perspectives.

The sample for the quantitative study presented in this paper is based on an Academic School consisting of approximately 2500 students. The spread of the disciplines within the Academic School is diverse, spanning Engineering, Creative Arts and Humanities. Figures are presented for full-time undergraduate courses (unless otherwise indicated).

Data and Discussion

At two critical points in the academic year (Oct/Nov and Jan/Feb) course leaders are asked to flag any students that are at risk of not completing studies due to non-engagement within the university (Table 1 presents the data for academic year 2019-2020). It should be noted that intervention in the form of referral for withdrawal or support can occur at any point in the student's journey; hence, the results in Table 1 are a snap-shot of referrals at two specific points in the academic year (which are the traditional times to raise a "cause for concern" formally). The total number of students identified to be potentially at risk at the two intervention points vary between 1.71% and 0.79% for the Oct/Nov intervention (Rows E and F), and 7.75% and 4.65% for the Jan/Feb intervention depending on the sample used (full-time only or total headcount). Irrespective of the sample size, both figures represent a significant proportion of students potentially at risk of failure to complete their studies due to lack of engagement. Within the School four different intervention types were used in attempt to re-engage students. These are defined as:

A. Fitness for study – Students who have engaged with study beyond induction, have a poor attendance record and academics deem it can be retrieved,

B. Cause for Concern – Students that have not engaged beyond induction, or have missed a significant proportion of their study which cannot be retrieved,

C. No action required – the student is already in the system (either via Fitness to Study or Cause for Concern),

D. Queries – Need to determine the student's status with course team or central guidance/support team.

Table 1. Identifying potential at risk students 2019-2020

Row Label	Intervention type	Oct/Nov 2019		Jan/Feb 2020		Combined Figures	
		Student at risk	% at risk	Student at risk	% at risk	Student at risk	% at risk
A	Fitness to study	10	0.81%	70	5.77%	80	6.6%
B	Cause for concern	3	0.24%	11	0.91%	14	1.16%
C	No action required	6	0.49%	9	0.74%	15	1.24%
D	Queries	2	0.16%	4	0.33%	6	0.5%
E	**Total F/T UG students**	**21**	**1.71%**	**94**	**7.75%**	**115**	**9.5%**
F	**Total School headcount**	**21**	**0.79%**	**94**	**4.65%**	**115**	**9.5%**

n1211 F/T UG only

In total 115 students were added to the 'potential at risk list' during the two touchpoints (Table 1 Row E). 14 students were found not to have engaged since the induction weeks for each respective semester. These students were directly referred to the withdrawal procedure and the "cause for concern" letter was issued giving the students further opportunity to contact the University should they wish to continue with their studies (Table 1 Row B). It should be noted that none of these students appealed and ultimately all were withdrawn.

If compared to the previous year, 46% of withdrawn students appealed the decision and the majority of the appeals were upheld, and the students were reinstated. This was extremely time consuming but also added an extra level of complexity for students who were already behind with their studies and potentially quite vulnerable often due to multiple challenges and commitments outside university. This initial action freed up resources for support to be targeted to the at-risk students who had a high likelihood of re-engagement with focused support in place (those identified in Table 1, Row A). The targeted support group consisted of a total of 80 students (from the two formal attendance monitoring points outlined in Table 1). These students were offered the opportunity to attend a Fitness to Study meeting with

their course leader (or academic tutor) and a Student Guidance Officer in attempt to re-engage positively. This process employed all support mechanisms in place to reduce the possibility of academic failure later in the year. The purpose of the Fitness to Study meeting was three-fold: initially to identify any barriers to re-engagement; it also identified areas where support was needed; and, finally, to agree a personalised plan between all parties to bridge appropriately tailored support for the student. The third and final category (Table 1, Row C and D - no action required and queries) identified 21 student who were already referred within a supportive process, and they were working towards re-engagement with studies, or their support need directed them to a break in studies.

It can be concluded from the data presented in Table 1 that should the positive intervention from fitness to study be successful, it had the potential to change the lives of 80 individual students, therefore reducing the total number of students withdrawing by up to 6.58% (for full-time UG). Moreover, the supporting students to engage project had quite far-reaching potential for our students, the University and wider society.

Phase two and three of the supporting students to engage project analysed outcomes for the academic year in which students were referred to the fitness to study process. The data was correlated with internally-held course retention figures to determine the impact of the intervention. Figure 1 displays the fitness to study recorded outcomes at the end of the academic year (It is categories with a RAG [red, amber or Green]) rating in terms of successful re-engagement or otherwise). In total the School referred 104 students for fitness to study meetings. These comprised of the 80 students from the formal attendance monitoring points in Table 1 and a further 24 students as direct referrals in year from course teams (many of these transpired into between 1-5 follow up meetings to meet support needs of the students, which were often complex). The pie chart illustrated in Figure 1 is colour coded: green for positive outcomes (student re-engaged or had study plan in place). This totals 51%. Red for negative outcomes (withdrawals or suspensions) and Amber for those in progress at the close of the academic year. Students who did not

respond to the request for a fitness to study meeting numbered 10% or those still in-progress (approximately 16%) due to late referrals to the fitness to study preventative action before the formal assessment period was not possible.

The Amber group are the most interesting category as these students are potentially at risk of dis-engaging with study. These are now flagged as needing support; hence, a fitness to study process can be actioned prior to the start of the next academic year. Thus, support is in place right from the start of the next academic year, which encourages positive behaviours. This has two advantages: it enabled the student to meet with the University in a pro-active way prior to the preceding years of study; secondly, it spreads the workload for academics and guidance officers, reducing bottle necks in the system (this was experienced primarily in the second intervention point Jan/Feb when 70 cases came into the system simultaneously, resulting in delays due to processing). These results can be viewed extremely positively in terms of re-engagement, use of resources and access to support.

To determine the wider impact of the supporting students to engage project, retention was compared at a fixed point in July 2020 between two consecutive years. There was a measured and significant 2.2% improvement in overall retention for students registered full-time in the Academic School. This was a dramatic improvement within the School (previous year's retention was 8.9% in 2018/2019, compared to 6.7% 2019/2020 - in real terms this represents 27 Full-time UG students). It should also be noted that this was significantly higher than the average university improvement across, which averaged out at 0.9% improvement across six academic schools.

The School of Creative Arts and Engineering consists of 19 individual course areas, 7 of these courses had re-engaged students through the fitness to study process more than 5 times in the 2019-2020 academic year (Table 2, Column a). Columns E and F illustrate that 5 out of the 7 courses that engaged with the fitness-to-study process had significantly positive improvement on retention, of between 2.5% and 5.8%.
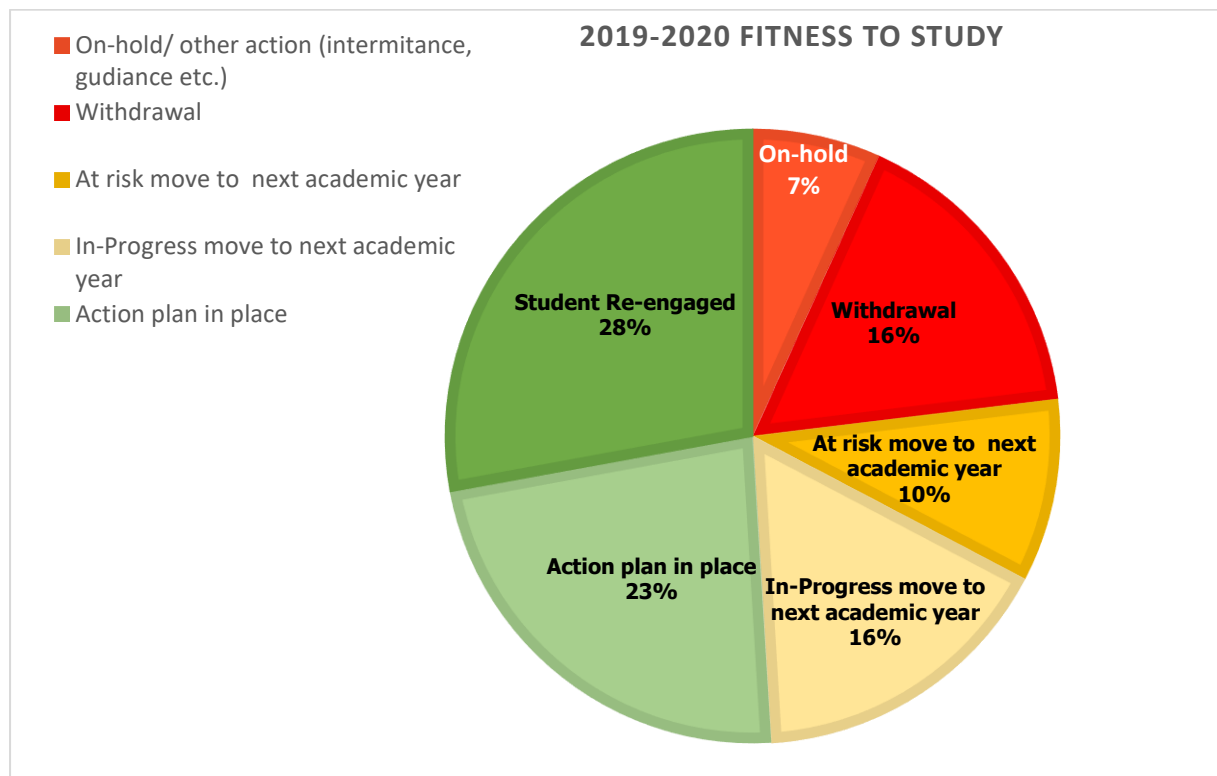
Figure 1. Outcomes of fitness-to-study meetings 2019-2020 (n=104)

Further exploration of the two courses that had marked declines in retention (Aeronautical and English & Creative Writing - those with the negative numbers in Column F) found that the majority of outcomes from the fitness to study process were largely pending (identified as at risk in Column C). The reason for the high number in this category was because the students didn't get into the support system prior to the exam period (this could be due to the student's availability, staff availability, guidance availability, or that a fitness to study was flagged too close to final assessment for it to be implemented constructively). Courses in which fitness to study had the maximum impact (in terms of positive intervention shown in column b) are those which all had positive and significant impact on retention. The most significant of all was Drama which retained 10 more students than the previous year and managed the re-engagement of students to learning through fitness to study plans, working with the student per se and central guidance. The students that were recommended for withdrawal (negative outcome, Table 2 column d) where those that declined the opportunity to engage with the support offered. Whilst this

outcome is recorded as negative (recommended for withdrawal), the number that were withdrawn was significantly less and this was confirmed through correlating actual withdrawals compared to recommended withdrawals (see Table 3 for actual withdrawals). The main reason for this is that the student did submit assessed work and ultimately re-engaged with the University prior to the cut off point for formal withdrawals. These numbers depict the categories that are perhaps actively choosing not to attend class, rather than due to circumstances preventing them doing so. The shock of receiving a letter regarding attendance prompted action and engagement with the course team, thus reversing many of the recommendations for withdrawal.

Table 2. Retention mapped with number of fitness to study cases

Column number	a	b	c	d	e	f
	Student numbers				Retention	
		Outcomes				
	Number of fitness to study referrals	Positive outcomes	At Risk	Negative Outcomes	% improvement from previous year	Student numbers
Aeronautical Engineering	10	4	6	0	-0.5%	-1
Automotive & Motorsports	9	5	0	4	2.5%	2
Graphics & Illustration	7	4	1	2	4.3%	4
Industrial Design - Product and Transport	8	5	0	3	3.2%	2
Mechanical Engineering	14	12	0	2	3.5%	3
Drama & Theatre Arts	12	6	2	4	5.8%	10
English & Creative Writing	8	3	5	0	-3.0%	-3

Note: (Positive outcomes, at risk and negative as defined in Figure 1)

Table 3. Fitness to Study outcomes mapped to intersections from APP

		Number of students	%	Uni %	Positive % n = 53	At Risk % n = 27	Negative % n = 24
A	Disabled	27	25.96	16	24.53	33.33	16.67
B	BAME	39	37.50	17	43.40	33.33	29.17
C	Male	74	71.19		67.92	70.37	79.17
D	Mature	25	24.04		18.87	29.63	29.17
E	IMD Quintile 1&2	41	39.42	44.8	41.51	37.04	37.50
F	Qualifications (BTEC,level2, mature)	73	70.19		71.70	66.67	70.83
G	Progression unsuccessful	24	23.08		18.87	25.93	25.00
H	Withdrawn	10	9.62		3.77	7.41	25.00
I	Polar Quintiles 1&2	51	49.04	48.8	45.28	51.85	54.17
J	Non care leaver	104	100.00	0.6	50.96	25.96	23.08

Impact

Phase 4 of the research explored the individual characteristics of the students defined by The Staffordshire University Access and Participation Plan, (APP 2020) who were offered the fitness to study package as an option to re-engage. It was found that there was a strong correlation with the students referred into fitness to study alongside the characteristics identified within APP. A high percentage of

students from Polar quintiles 1&2 and IMD quintiles 1&2 were referred to fitness to study processes (49.04% and 39.42% of the 104 cases are student from this social classification). This compares to university figures of 49% Polar quintiles 1&2 and 45% IMD quintiles 1&2 (OfS, 2020). Interestingly there are disproportionately more males 71.19% than females who underwent fitness to study processes during 2019-2020. BAME and students with declared disability are also disproportionately represented (at 37.50% and 25.96% of all respective cases) when compared to the University figures (BAME full-time students 18% and those full-time with declared disability 18% - (OfS, 2019). Those in the category of non-traditional qualifications (BTEC, access to higher education routes and students who were given accredited prior learning exemptions) also formed a common characteristic with students who were referred to the fitness to study scheme. It was found that 70.19% hold BTEC Level 3, level 2 or were mature students (This compares to a university average of 82% for 2019-2020 intake). This led to speculation that alternative approaches were required to support students with multiple intersections of categories identified within the APP. Arguably, this is principally about early relationship building and attentional approaches and is to some extent unsurprising theoretically, but powerful when put into direct practice as described here.

What is interesting concerns the actual number of withdrawals. It can be seen from Table 3 that 10 students were withdrawn, compared to those recommended for withdrawal, equating to 17 students or 16% (outcome of fitness to study, see Figure 1). After further analysis this was found to be due to late processing as the end of year exam board approached, so effectively the students were not withdrawn officially for lack of engagement, but for academic failure or progression at exam board. Out of the students that were deemed to have re-engaged or having followed a study plan (highlighted in green which totalled 53/104 students or 51% (Figure 1), 81% went on to progress into the next year (Table 3 Row G – shows 19% of the students that re-engaged through the fitness to study procedure did not progress onto the next year of study). In comparison, students in the Red or Amber fitness to study categories saw over 25% of students not progressing (Table 3 row G); and

more concerning in the Red category a significant number of the students were ultimately withdrawn (25%). Whereas the students that engaged or were identified as "at risk" (Table 3 Positive and At Risk) had significantly less cases resulting in withdrawal 4% and 7% respectively.

Further correlations between the protected characteristic (Table 4) illustrated some interesting and significant relationships. Three protected characteristics (Qualifications, sex-male and Polar 4) correlated with between 4-6 other influencing factors (shaded grey in Table 4, overleaf). Students who were disabled and referred to the fitness to study process, were also predominantly (85.19%) those holding non-traditional entry qualifications (BTEC, Level 2 & 3 or alternative access route to HE). There was also a strong correlation with disability and those from Polar 4 quartiles 1&2 (areas where young people are less likely to participate in higher education). The same correlation pattern was also evident for both male students and IMD quintiles 1&2.

The second strongest correlation was identified with mature students and qualifications (84%), this is unsurprising since many mature students enter into higher education holding non-traditional qualifications, this demonstrates the widening participation agenda at Post 92 institutions. Mature students also correlates with male, disproportionately there were more mature male students referred to the fitness to study process as a result of lack of attendance (76%). Correlations were also found with BAME; and male (79.46%) and non-traditional qualifications (66.67%); and Polar 4, with male (66.67%) and non-traditional (76.47%). The final observation was that students entering into fitness to study with non-traditional qualifications had a significant chance of also having a second protected characteristic of either being in an area of low participation to higher education (Polar 4, quintiles 1&2 53.42%) or male (72.6%).

Table 4. Correlation of the protected characteristics

Influencing Factors - Percentage Stats (%)							
	Disability	BAME	Sex: Male	Mature	Quals	IMD 1&2	Polar 4
Disability		2.56	21.62	44.00	31.51	31.71	33.33
BAME	3.70		41.89	36.00	35.62	48.78	33.33
Sex: male	59.26	79.49		76.00	72.60	68.29	66.67
Mature	40.74	23.08	25.68		28.77	29.27	29.41
Quals	85.19	66.67	71.62	84.00		75.61	76.47
IMD1&2	48.15	51.28	37.84	48.00	42.47		58.82
Polar 4	62.96	43.59	45.95	60.00	53.42	73.17	

These relationships are significant, since they suggest that key influencing factors for the referral to fitness to student (identified through non-attendance) are highly dependent on non-traditional entry qualifications, sex (males are more likely to be referred to fitness to study) and location (Polar 4 quintiles 1&2). This implies and supports the "What Works" agenda of Thomas et al. (2017). They note that: "interventions or activities should aim to enhance student engagement and belonging through supportive peer relations, meaningful interaction between staff and students, developing students' capacity as successful higher education (HE) learners, and providing an HE experience that is relevant to students' interests and future goals" (p.4). This study provides reinforcing evidence for Thomas et al. (2017) assertions that students are more likely to fall into patterns of non-attendance and without positive intervention and support (which had a more profound impact) these individuals are more likely to disengage with studies and eventually withdrawal.

The final part of this analysis correlated the number of students who undertook fitness to study during 2019-2020 with multiple intersections of the protected

characteristics used in the study. The data is presented in two formats: initially number of students with 1, 2 or more than 3 of the identified characteristics (Table 5 and Figure 2); followed by a more comprehensive analysis for each of the five protected characteristics (Table 6).
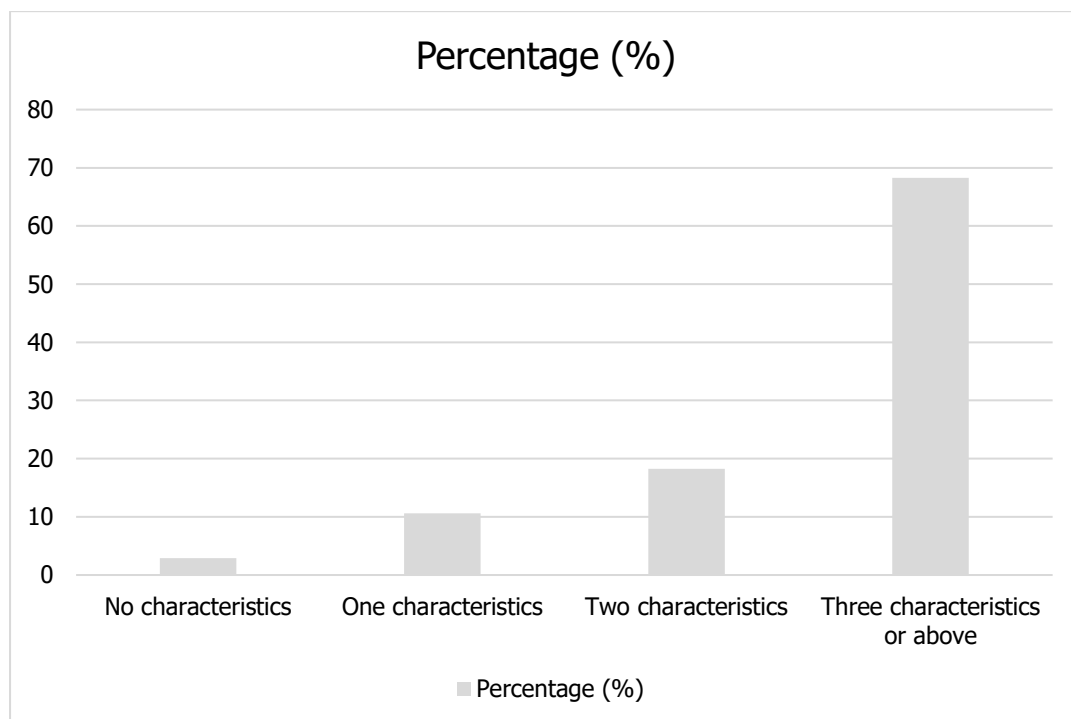

Figure 2. Students with multiple protected characteristics intersections

It is interesting and of significance that over 68% of the students referred into fitness to study had three or more of the protected characteristics (which will be explored more fully) and perhaps more interesting that only 3% had no protected characteristic (all female). A more detailed analysis revealed that the 11 students with one protected characteristic are predominantly male (7 in total). For those with two identified protected characteristics, 13 were male (68%) and of these 6 had a second protected characteristic of non-traditional qualifications, and 5 had the second characteristics of BAME. If we manipulate the data determined from the 19 students, it was found that 8 are BAME students (42%) and 9 are students with non-traditional qualifications (50%). There is a significant jump to students who were

referred into fitness to study with 3 or more protected characteristics. Non-traditional entry qualifications accounted for 84.5%, 76% were male, 56% lived in areas with IMD (quintiles 1&2) 44% were BAME and 35% disabled or mature. Further correlations of the protected characteristics were conducted, and this analysis is detailed in Table 6 below.

Table 5. Accumulated protected characteristics

Protected Characteristics	No.	Percentage (%)
No characteristics	3	2.88
One characteristics	11	10.58
Two characteristics	19	18.27
Three characteristics or above	71	68.27

Table 6. Highest related second characteristic n=104

a	b	c	d	e	f
	No of students	% of students	1st related characteristic	2nd related characteristic	3rd related characteristic
Male	74	71.15	Quals 50.96%	Polar 26.92%	BAME 7.69%
Quals	73	70.19	Male 50.96%	Polar 26.92%	IMD 15.38%
Polar 4	51	49.04	Quals 37.50%	Male 26.92%	IMD 15.38%
IMD (1&2)	41	39.42	Quals 29.81%	Polar 22.12%	Male 15.38%
BAME	39	37.50	Male 29.81%	Quals 18.27%	IMD 11.54%
Disability	27	25.96	Quals 20.19%	Polar 13.46%	Male 10.58%
Mature	25	24.04	Quals 16.35%	Male 15.38%	Polar 8.65%
Care leaver	0	0.00	N/A	N/A	N/A

Table 6 illustrates that the students who have B-tec qualifications or have entered higher education from access courses (those in column d marked Qual), were strongly related to five other characteristics (Male, Polar4, IMD 1&2, those with a

disability and mature students). The second most related characteristic was in the main Polar 4 category; hence, those students who are less likely to enter higher education based on location. This was evident from column e where it is related as the second highest for four characteristics (column a - Male, Quals, IMD (1&2) and Disability). The final prominent characteristic (column f) was IMD (quintiles 1&2) meaning those students that are in some of the most deprived areas in England, and this was related to (Quals, Polar 4, BAME). Other interesting points to note are BAME students were the third highest related category for male students; so 7.69% of male students (74 in total) who entered fitness to study were BAME (7 students). This is significant as the School has 14.3% BAME students in a population of 2174 students. Another interesting point shows that disability and mature students did not appear in the top 3 strongest correlations for any other category.

Conclusion

The work presented in this paper contributes interesting knowledge in two areas. Firstly, it demonstrates the potential of positive impact in terms of re-engagement when using a connected approach (fitness to study). This occurs by forming a partnership between the individual student, academic team and guidance. This has a profound impact on re-engaging the student with their studies and offers significant early intervention to support students in progressing successfully. Whilst the process increased workload in terms of guidance meetings, it also reduced workloads significantly concerning appeals processes. The number of students who were withdrawn and then appealed reduced from 17 in the year 2018-2019, to zero during the academic year 2019-2020. This is far-reaching in time-saving benefits to the university in terms of processing appeals and reinstating students, to students themselves and academic formulating of appeals etc. More importantly, it reduced the negative affect of appealing and having to experience a potential loss of study time whilst the appeal filters through university processes.

The process of referral to fitness to study enables the student to be kept live in the system with full access to all university support mechanisms. It enabled a community of connected support to be facilitated and monitored and tracked so that the student can engage fully with a safety net wraparound. The number of students that experienced positive re-engagement is a success story in itself, and the impact on retention has been significant for the academic programs that participated. If this was costed comprehensively in terms of fees, loss to economy etc., it would add further powerful evidence to the possible rationale for this scheme.

The second area of knowledge contribution is unsurprising theoretically, but powerful when put in practice as here. Theoretically it might be assumed that students with more protected characteristics might need extra support to be afforded more equality of opportunity. Therefore, the results are unsurprising. It is the prominence of seeing this data translated into students identified as at risk that is alarming and the emerging notion that BAME students and students with disabilities are more represented in this data set than university average figures. Furthermore, for students who had identified themselves as disabled, 85% also had non-traditional qualifications and 63% came from non-traditional entry areas, as defined by Polar 4, quintiles 1 and 2. The data for BAME students presents much of the same narrative, 66% have non-traditional qualifications and 79% were male – this again supports recent research (Wong et al., 2021) concerning perceptions of some challenges faced by male BAME students during studies.

When you begin to explore the multiple intersections of the protected characteristics of the data set, a powerful (yet disturbing) image emerges. Over 68% of students identified through this study as 'at risk' have multiple intersections of protected characteristics (three or above). When correlated, the three highest characteristics were found to be non-traditional entry qualifications, students entering form areas with traditionally low participation rates in HE (polar 4 quintiles 1and2, and students from the most deprived neighbourhoods as defined by IMD 1&2.

There is much more work to do to uncover the complexities of engagement, or lack of, related to various intersectionalities. This study hopes to stimulate debate by sharing ideas which might begin to make a difference to a range of students' life chances.

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