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REHABILITATIVE CULTURE

Rationale and use of computer screening tools in prisons for people with learning difficulties and disabilities

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Introduction

A number of documents in the past ten years have described a clear need to support individuals with learning difficulties and disabilities at all stages of the criminal justice pathway. This includes, for example, the recent *Unlocking Potential Review of Education in Prison*,[1] as well as the *Valuing People Strategy for Learning Disability,*[2] *Valuing people Three Year Strategy,*[3] *The Bradley Review*[4] and a series of *No-One Knows* reports by the Prison Reform Trust.[5,6,7,8,9,10,11] In the *No one knows report* by Loucks[12] specifically, it is estimated that between 20 per cent to 30 per cent of prisoners have learning difficulties *or* learning disabilities that interfere with their ability to cope within the Criminal Justice System (CJS).

While welcoming the increased awareness relating to learning disability and learning difficulties, a number of challenges remain in implementing any support required, especially with the likely numbers being identified. One challenge has been the inconsistent and variable use of terms describing the conditions. A second challenge is the lack of means for screening prisoners consistently and effectively. And then if identified, the processes to support each person according to their needs identified given the variability of presentation and challenges.

This paper is the first of a series aiming to discuss some of these challenges, and examines how a person-centred approach can be enacted. It describes how using technology can be a means of delivering an equitable and robust needs assessment aligning with the *Definition of Disability under the Equality Act 2010*,[13] and presents some over-arching results using the system.

The two key aspects in this paper are:

- ❒ Firstly, why it is difficult to practically screen people for learning difficulties and disabilities in a prison setting
- ❒ Secondly, how using technology can help to deliver a person centred approach and support staff understanding around the individual and their needs

Why is screening people for learning difficulties and disabilities in a prison setting difficult to do?

The first part of answering this question is that impairment is not a stable phenomenon but may

1. Coates, op. cit.
2. Department of Health. (2001). *Valuing People: A New Strategy for Learning Disability for the 21st Century*. London: Department of Health.
3. Department of Health. (2009). *Valuing People Now: A New Three-Year Strategy for People with Learning Disabilities*. London: Department of Health.
4. The Rt Hon Lord Bradley. (2009). *Lord Bradley's Review of People with Mental Health Problems or Learning Disabilities in the Criminal Justice System*. London: Department of Health.
5. Loucks, N. (2007). *No One Knows: Offenders with Learning Difficulties and Learning Disabilities: Review of Prevalence and Associated Needs*. Prison Reform Trust.
6. Loucks, N., & Talbot, J. (2007). *No One Knows: Identifying and Supporting Prisoners with Learning Difficulties and Learning Disabilities: The Views of the Prison Staff in England and Wales*. Prison Reform Trust.
7. Loucks, N., & Talbot, J. (2007). *No One Knows: Identifying and Supporting Prisoners with Learning Difficulties and Learning Disabilities: The Views of the Prison Staff in Scotland*. Prison Reform Trust.
8. Talbot, J. (2008). *No one knows: Prisoners' Voices: Experiences of the criminal justice system by prisoners with learning disabilities and difficulties*. Prison Reform Trust.
9. Loucks, N., & Talbot, J. (2008). *No One Knows: Identifying and Supporting Prisoners with Learning Difficulties and Learning Disabilities: The Views of the Prison Staff in Northern Ireland*. Prison Reform Trust.
10. Jacobson, J. (2008) *No One Knows: Police Response to Suspects Learning Disabilities and Learning Difficulties: A Review of Policy and Practice*. Prison Reform Trust.
11. Jacobson, K., & Talbot, J. (2009). *No One Knows: Vulnerable Defendants in the Criminal Courts: A Review of Provision for Adults and Children*. Prison Reform Trust.
12. Loucks, op. cit.
13. Available at https://www.gov.uk/definition-of-disability-under-equality-act-2010

change depending on the context, the task, or activity the person is being asked to do. This is sometimes referred to as the ecology of the person (i.e. a person may be impaired in one setting but not in another). Also, the impact of external factors can result in different responses in different people depending on their internal strengths and challenges. This can result in cumulative adversity. For example, an individual may be able to cope with communication difficulties, but could lose their home as a result, and consequently become less able to manage and function well. In some ways this sets the impairment outside the person, meaning that if the environment (and also the individual's behavioral response) was to change, so would the likely impact on that person both positively and negatively. This is particularly important in the context of the CJS. A new and unfamiliar setting may be challenging for all, but for someone with a learning difficulty or disability it may have a far greater impact on their ability to cope. If they cannot read or understand the prison rules this can immediately be a problem for them. However, the specific difficulties may vary greatly from person to person. In the report *Prisoners Voices*, Talbot[14] highlights this: 'People with learning disabilities are not a homogeneous group…they are all individuals with a wide range of life experiences, strengths, weaknesses and support needs. However, many will share common characteristics which might make them especially vulnerable as they enter and travel through the criminal justice system' (p.3).

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Government documents in 2014 and 2015 highlighted both the need for clarification over definitions and the need to develop reliable systems and better processes to screen consistently. For example, in the 2014 *Joint Inspection of the Treatment of Offenders with Learning Disabilities within the Criminal Justice System (phase one)* report[15] it states: 'An accurate estimate of the number of people with learning disabilities within the criminal justice system is impossible because of poor interpretations, about what constitutes a learning disability and a failure to properly identify and record this issue by all the key agencies at all points in the criminal justice process. The specific findings of this inspection are to a great extent a manifestation of these problems of definition and identification' (p.4). Both points were again highlighted in the 2015 *Joint Inspection (phase two)* report,[16] underlining the challenges in operationalizing support: '…we found that no clear definition or agreement existed across criminal justice, health and social care organisations about what constitutes learning disabilities or difficulties' (p.6).

Is it realistic to agree on definitions or is this an impossible task for health, education, and probation to use common terminology?

The challenge in many ways has not been in identifying those who are 'severe' cases where difficulties are usually more obvious or they have been identified at an early stages of their lives by mainstream services, but in those where there is some doubt and defining what is a margin and where lines are drawn. In the study by McCarthy et al.,[17] which screened offenders for learning disabilities and difficulties, nearly all the offenders who had a learning disability had already been diagnosed with some difficulties already. However, those with Attention Deficit/Hyperactivity Disorder (AD/HD) 'traits' had been missed much more. It is those at the edges of diagnosis, or those who might have multiple reasons for their challenges (such as a lack of education or being a looked after child and moving around the system), whom may never have had their needs fully considered, or perhaps for some had challenges misinterpreted. Those who are 'subthreshold' may still be as vulnerable despite no formal diagnosis. The question then is, how do we support them?

14. Talbot, op. cit.
15. HM Inspectorate of Probation, HMI Constabulary, HM Crown Prosecution & the Care Quality Commission. (2014). *A Joint Inspection of the Treatment of Offenders with Learning Disabilities within the Criminal Justice System—phase one from arrest to sentence*. London: Criminal Justice Joint Inspection.
16. HM Inspectorate of Probation & HMI Prisons. (2015). *A Joint Inspection of the Treatment of Offenders with Learning Disabilities within the Criminal Justice System—phase two in custody and the community*. London: Criminal Justice Joint Inspection.
17. McCarthy, J., Chaplin, E., Underwood, L., Forrester, A., Hayward, H., Sabet, J., Young, S., Asherson, P., Mills, R., & Murphy, D. (2015). Screening and diagnostic assessment of neurodevelopmental disorders in a male prison. *Journal of Intellectual Disabilities and Offending Behaviour,* 6(2), 102 – 111.

We may need to be aware that humans love groupings and sorting people; as Foucault[18] said, the groups that we create ''systematically form the objects of which they speak'' (p.54). This has been called a looping effect. We create the box and then fit people within it. Two classification systems in place, such as those used in the medical world, are the *American Psychiatric Association (APA) Diagnostic and Statistical Manual (DSM-V)*,[19] first outlined in 1952, and the *World Health Organisation (WHO) International Statistical Classification of Diseases and Related Health Problems*.[20] Such categorization systems have been said to act as a 'rough and ready classification that brings some order to chaos'.[21] Interestingly, both the above systems do not use the terms learning difficulties or disabilities, but rather describe this group of 'disorders' as, for example, 'Neurodevelopmental Disorders'.[22] This means that there is another set of boxes which is different from the 'learning difficulties and disabilities' box described in documents within the CJS.

The 'subthreshold' person that doesn't quite fit or get identified may also be because the person has difficulties in more than one area, at a level that the screening doesn't result in flagging them up enough in one box or another, but nevertheless cumulatively impacts on their life. In reality, learning difficulties and disability conditions are actually on a continuum, and not in categorical neat boxes separate and discrete from each other. Indeed, the authors of the *Diagnostic and Statistical Manual of Mental Disorders*[23] state: 'Neurodevelopmental disorders [which encompass learning disability and difficulties] frequently co-occur; for example, individuals with Autism Spectrum Disorder often have Intellectual Disability (intellectual developmental disorder), and many children with attention-deficit/hyperactivity disorder also have a specific learning disorder' (p.31).

In reality, learning difficulties and disability conditions are actually on a continuum, and not in categorical neat boxes separate and discrete from each other.

This means that someone can, in reality, have 'bits' of one diagnosis and 'bits' of another (e.g. some reading difficulties and difficulties with communication). This may not mean they fit into a single box but still require support. Even when two people have the same diagnosis it also does not mean they have exactly the same difficulties, as it is not necessary to meet *every* symptom and sign to gain a diagnosis. The terms really mean that there are a group of symptoms and signs and you need to meet some (but not all) of them in order to gain the diagnosis. To add to this complexity, each person will also have had very different lives and educational experiences before reaching the CJS. This may also impact on how they present and what help and support they require.

So can we agree on definitions?

The term 'learning disability' has been variably described, including the WHO definition.[24] In some countries the term Intellectual Disability (ID) or Intellectual Developmental Disorder (IDD) is used to describe this. To add to the confusion, learning disability can have different meanings in different countries. In the United States for example, the term is usually associated with reading difficulties. According to England's *Strategy for Learning Disability*,[25] the Northern Ireland *Review of Mental Health and Learning Disability*,[26] the Scottish *Same As You* Government consultation[27] and Wales's *Fulfilling the Promises* policy,[28] learning disability is defined as:

1. a significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence), with;
2. a reduced ability to cope independently (impaired social functioning);
3. which started before adulthood, with a lasting effect on development.

18. Foucault, M. (1972). *The Archaeology of Knowledge*. New York, NY: Harper and Row.
19. American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th Ed.). Washington: American Psychiatric Association.
20. World Health Organization. (2016). T*he ICD-10 International Statistical Classification of Diseases and Related Health Problems (5th Ed.)*. Geneva: World Health Organization.
21. Paris, J. (2013). DSM-5: Handle With Care. [Web log post]. Retrieved December 6th, 2016, from http://www.neuropsychotherapist.com/dsm-5-handle-with-care/
22. American Psychiatric Association, op. cit.
23. American Psychiatric Association, op. cit.
24. World Health Organization, op. cit.
25. Department of Health. (2001). *Valuing People: A New Strategy for Learning Disability for the 21st Century*. London: Department of Health.
26. Bamford, op. cit.
27. Scottish Executive. (2000). *The same as you? A review of services for people with learning disabilities*. Edinburgh: The Stationary Office.
28. National Assembly for Wales. (2001). *Fulfilling the promises: Proposals for a Framework for Services for People with Learning Disabilities*. Cardiff: National Assembly for Wales.

This definition does not include a specific cut off score or test for 'impaired intelligence' which results in variable interpretation. But, Intelligence Quotients (IQ) as an absolute measure has been challenged as there had been a tendency to be over confident using it as a single means of diagnosing learning disability and then deciding on support and access to services by using it as a means of cutting off service provision (i.e., if you are below one defined score you get support, and if you are above it then you do not). The authors of the DSM-V[29] made the very important point that 'IQ test scores are an approximation of conceptual functioning but may be insufficient to assess reasoning in real-life situations and mastery of practical tasks' (p.37). Likewise, authors of the *Positive Practice Positive Outcomes* report[30] stated that an 'IQ score alone is not a sufficient indicator. Social factors must always be considered' (p.5).

In the DSM-V it is also noted that tools used should be 'normed for the individual's sociocultural background and native language' [31] (p.8). The authors go on to state that 'co-occurring disorders may affect communication, language and / or motor or sensory function may affect test scores' (p.8). It is not difficult to see that someone undertaking an assessment in English, whilst their first language is Polish for example, may score 'poorly' on the task, but not because the person lacks ability, but rather because they do not understand the content of the questions being asked.

What about Learning Difficulties?

The term 'learning difficulties' has also been used to encompass a number of conditions. Other terms have been used, and include: Specific Learning Difficulties, Learning Differences, Developmental Disorders, Neurodevelopmental Disorders, Hidden Impairments, Non-Visible Conditions and Neurodiversity. Under the umbrella term 'Neurodiversity' Attention Deficit Hyperactivity Disorder, Attention Deficit Disorder, Dyslexia, Dyscalculia, Developmental Coordination Disorder, and Specific Language Impairment have been included. Autism Spectrum Disorder (ASD) is sometimes, but not always, included in this grouping. What is included in learning difficulties varies, and is another reason why operationalizing this is consistently problematic, as described in *The Bradley Review*:[32]

'Learning difficulties can be even harder to define; the Education Act 1996 sets out the following:

'A child has a 'learning difficulty' if:

- he has a significantly greater difficulty in learning than the majority of children of his age,
- he has a disability which either prevents or hinders him from making use of educational facilities of a kind generally provided for children of his age in schools within the area of the local education authority...' (p.19).

The term 'specific learning difficulty' is used in the Department of Health Positive Practice, *Positive Outcomes*[33] document: 'A specific learning difficulty is defined by specific problems processing certain types of information. It does not affect overall intelligence of a person. It is common to have more than one specific learning difficulty and /or other conditions' (p.7). Again alluding to the need for recognition of overlapping patterns of presentation.

It is not unusual for multiple learning difficulties to be present in an individual.

This was also highlighted in the more recent *Coates report*,[34] the concept of a continuum was reiterated: 'It is not unusual for multiple learning difficulties to be present in an individual. SpLDs affect adults and children across the full range of IQ categories' (p.35).

So how many people have learning difficulties and disabilities in the CJS?

The challenge is that much of the data on the number of prisoners with learning difficulties and/or disabilities varies greatly because of how it is collected and the tools being used to do so. In contrast to the general population, it is very difficult to be absolutely confident of the prevalence rates of any condition within the offending and judicial systems because of lack of routine, consistent screening, and recording systems. Many individuals will have had fewer opportunities for formal assessments or intervention. The individual excluded from school would have not been routinely screened for learning difficulties.[35]

29. American Psychiatric Association, op. cit.
30. Department of Health. (2011). *Positive Practice Positive Outcomes: A Handbook for Professionals in the Criminal Justice System working with Offenders with Learning Disabilities.* London: Department of Health.
31. American Psychiatric Association, op. cit.
32. The Rt Hon Lord Bradley, op. cit.
33. Department of Health, op. cit.
34. Coates, op. cit.
35. Mottram, P. & Lancaster, R. (2006). *HMPs Liverpool, Styal and Hindley YOI: Preliminary Results*. Cumbria and Lancashire: NHS Specialised Services Commissioning Team.

This means that they can often arrive in prison without a diagnosis, or may not have had anyone consider a more complete profile. Over focus on a specific diagnosis may not yield good results as some specialists have stated that it is, in reality, hard to differentiate Dyslexia from other causes of reading difficulties in adults.[36] Prevalence rates of Dyslexia within prisons has been cited anywhere from 4 per cent to 56 per cent.[37,38,39] With such a wide range of prevalence rates cited, this reiterates the difficultly in defining neat categories.

Macdonald[40] questions whether it is really possible to unravel the social and educational aspects of literacy in an offending population which are so intertwined. Lack of education or lack of school attendance may influence the ability to learn to read. Alternatively, high levels of inattention and impulsivity (relating to potential ADHD or Traumatic Brain Injury) may lead to exclusion from school, resulting in lost teaching time and consequences for reading ability. There is good evidence that early life experiences, such as having low Socio-Economic Status (SES), are likely to impact reading outcomes, with parents shown to read less to their children than those with higher SES.[41] Tuominen et al.[42] encourage the use of the term 'functional illiteracy' as a better descriptor rather than differentiating between those with Dyslexia or poor reading difficulties within the offending population.

Prevalence rates for other conditions also varies. A meta-analysis of 42 international studies reported that 30 per cent and 26 per cent of the youth and adult prison populations, respectively, had clinically diagnosed ADHD.[43] Ginsberg, Hirvikoski and Lindefors[44] estimated the prevalence of adult ADHD among longer-term inmates to be 40 per cent. For Autism Spectrum Disorder (ASD), Robinson et al.[45] reported, in a Scottish prison population study, that ASD was no more common than in the mainstream population. However, in a US prison study, a rate of 4.4 per cent was reported.[46]

The difficulties often with these prevalence rates is that the 'other' learning difficulties are not always considered alongside the one being reported on through lack of tools and lack of awareness of common conditions such as Developmental Co-ordination Disorder (DCD), also known as Dyspraxia. In reality, is the support you get for those with reading difficulties or Dyslexia any different in prison, and is it ethical that a prisoner with Dyslexia gets more support than those who have not had such an opportunity to learn? If we take a person-centred approach, we can end up supporting those in most need regardless of whether they meet a tight set of criteria.

People on a continuum

There is extensive evidence now that learning difficulties commonly overlap with one another, and that someone with only one area of difficulty is uncommon (e.g.,[47]). Many researchers are concluding that the umbrella of conditions are far from being categorical and should be seen as dimensional.[48] This dimensional view was noted by McCarthy et al.[49] describing the 'characteristics of prisoners with neurodevelopmental

36. Singleton, C., Horne, J., & Simmons, F. (2009). Computerised screening for dyslexia in adults. *Journal of Research in Reading, 32*(1), 137–152.
37. Kirk, J., & Reid, G. (2001). An examination of the relationship between dyslexia and offending in young people and the implications for the training system. *Dyslexia, 7*(2), 77–84.
38. Lindgren, M., Jensen, J., Dalteg. A., Wirsén-Meurling, A., & Ingvar. D. H. (2002). Dyslexia and AD/HD among Swedish prison inmates. *Journal of Scandinavian Studies in Criminology and Crime Prevention, 3*, 84–95.
39. Talbot, op. cit.
40. Macdonald, S. J. (2012). Biographical pathways into criminality: understanding the relationship between dyslexia and educational disengagement. *Disability & Society, 27*(3), 427–440.
41. Ready, D. (2010). Socioeconomic Disadvantage, School Attendance, and Early Cognitive Development: The Differential Effects of School Exposure. *Sociology of Education, 83*(4), 271–286.
42. Tuominen, T., Korhonen, T., Hämäläinen, H., Temonen, S., Salo, H., Katajisto, J., & Lauerma, H. (2014). Functional illiteracy and neurocognitive deficits among male prisoners: implications for rehabilitation. *Journal of Forensic Practice, 16*(4), 268–280.
43. Young, S., Moss, D., Sedgwick, O., Fridman, M., Hodgkins, P. (2014). A meta-analysis of the prevalence of attention deficit hyperactivity disorder in incarcerated populations. *Psychological Medicine 45*, 247–258.
44. Ginsberg, Y., Hirvikoski, T., & Lindefors, N. (2010). Attention Deficit Hyperactivity Disorder (ADHD) among longer-term prison inmates is a prevalent, persistent and disabling disorder. *BioMed Central Psychiatry, 22*(10), 1–13.
45. Robinson L., Spencer M. D., Lindsay D. G., Stanfield A. C., Owens D. G. C., Hall, J., & Johnstone, E. (2012). Evaluation of a screening instrument for autism spectrum disorders in prisoners. *PLoS ONE, 7*(5), e36078.
46. Fazio, R.L., Pietz, C.A., & Denney, R.L. (2012). An estimate of the prevalence of autism-spectrum disorders in an incarcerated population. *Open Access Journal of Forensic Psychology, 4*, 69–80.
47. Kaplan, B., Wilson, B., Dewey, D., & Crawford, S. (1998). DCD may not be a discrete disorder. *Human Movement Science, 17*(4–5), 471–490.
48. Coghill, D., & Sonuga-Barke, E. J. S. (2014). Annual research review: categories versus dimensions in the classification and conceptualisation of child and adolescent mental disorders—implications of recent empirical study. *Journal of Child Psychology and Psychiatry, 53*(5), 469–489.
49. McCarthy, J., Chaplin, E., Underwood, L., Forrester, A., Hayward, H., Sabet, J., Young, S., Asherson, P., Mills, R., & Murphy, D. (2016). Characteristics of prisoners with neurodevelopmental disorders and difficulties. *Journal of Intellectual Disability Research, 60*(3), 201–206.

disorders and difficulties' (p.201). Many examples come from mainstream populations and many years of research: DCD and ADHD;[50] ADHD and ASD;[51] ADHD and reading difficulties;[52] ADHD, Dyslexia and mathematic difficulties;[53] Language disorders and Dyslexia;[54] and Language disorders and DCD.[55] Much of this research in the past came from childhood studies but additional research in the past 10 years has highlighted the same patterns not surprisingly in adults. For example, Young et al.[56] reported high level of co-occurrence with ADHD and other conditions, and came to an important conclusion that the learning difficulties may be misdiagnosed:

'Co-morbid presentation of offenders with ADHD and the findings have implications for clinical intervention and for criminal justice policy. Clinical symptoms of ADHD in youth and adult offenders are often missed or misdiagnosed and it seems that for youth offenders, ADHD is most likely to be misdiagnosed as mood/affective disorders' (p. 2508).

In a study of adults with learning disabilities in an offending setting, 15 per cent had ADHD and 10 per cent of individuals had ASD as well.[57] This means that excluding or including some symptoms and signs under the umbrella of learning difficulties and disabilities may not be a valid approach, and more importantly, may miss out on vital information that could inform support or intervention for the individual. To add to this complexity, learning difficulties often co-occur with mental health disorders. White, Oswald, Ollendick and Scahill[58] found, for example, adults with ADHD were five time more likely to develop a mood disorder, were four times more likely to develop an anxiety disorder, and were three times more likely to develop a substance misuse disorder. The diagnostic boxes we speak of are clearly not neat.

Is equal actually equal?

As Orwell in Animal Farm[59] said 'All animals are equal but some animals are more equal than others'. Do some diagnoses confer greater support for individuals than others? Awareness and availability of professionals and services may influence who you are seen by and what diagnosis you get. One example of this was shown relating to young people with a language impairment but not a diagnosis of ASD.[60] Specifically, they found that individuals with ASD were less likely to have had assistance despite the impact of their difficulties in life being similar. Differences in awareness may also stem from the fact that until recently, developmental disorders were thought of as childhood conditions that individuals would 'grow out of'; only in the last 20 years or so has there has been increasing understanding of the lifelong nature of these conditions. Some conditions may be perceived by some to be more or less significant or important than others. This can be related to level of knowledge and also some common public misconceptions. Mainstream press may show Dyslexia more favourably than ADHD. The language used and famous people cited (for an example see *'Achievers with the Gift of Dyslexia'* website)[61] may have a role altering views. Gaining a diagnosis for conditions other than Dyslexia (such as ADHD or ASD) is harder for adults. Does this result in us favouring support those with Dyslexia (because we can), and do less for those with, for example, ADHD traits?

A holistic person- centred approach to support requires the need to gain information on past and present functioning. An example of this is when differentiating between ADHD traits and/or those seen in Traumatic Brain Injury (TBI); which may present very

50. Rasmussen, P., & Gillberg, C. (2000). Natural outcome of ADHD with developmental coordination disorder at age 22 years: a controlled, longitudinal, community-based study. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*(11), 1424–1431.
51. Sinzig, J, Walter, D., & Doepfner, M. (2009). Attention deficit/hyperactivity disorder in children and adolescents with autism spectrum disorder: symptom or syndrome? *Journal of Attention Disorder, 13*(2), 117–26.
52. Kadejso, B., & Gillberg, C. (2001). The comorbidity of ADHD in the general population of Swedish school-age children. *Journal of Child Psychology and Psychiatry, 42*(4), 487–492.
53. Mayes, S. D., & Calhoun, S. L. (2006). Frequency of reading, math and writing disabilities in children with clinical disorders. *Learning and Individual Differences, 16*(2), 145–157.
54. Snowling, M., Bishop, D., & Stothard, S. (2000). Is Preschool Language Impairment a Risk Factor for Dyslexia in Adolescence? *Journal of Child Psychology and Psychiatry, 41*(5), 587–600.
55. Hill, E.L. (1998). A dyspraxic deficit in specific language impairment and developmental coordination disorder? Evidence from hand and arm movements. *Developmental Medicine and Child Neurology, 40*(6), 388–395.
56. Young, S., Sedgwick, O., Fridman, M., Gudjonsson, G., Hodgkins, P., Lantigua, M., & González, R. (2015). Co-morbid psychiatric disorders among incarcerated ADHD populations: a meta-analysis. *Psychological Medicine, 45*(12), 2499–2510.
57. O'Brien, G., Taylor, J., Lindsay, W., Holland, A., Carson, D., Steptoe, L., Price, K., Middleton, C., & Wheeler, J. (2010). A multi-centre study of adults with learning disabilities referred to services for antisocial or offending behaviour: Demographic, individual, offending and service characteristics. *Journal of Learning Disabilities and Offending Behaviour, 1*(2), 5–15.
58. White, S. W., Oswald, D., Ollendick, T., & Scahill, L. (2009). Anxiety in children and adolescents with autism spectrum disorders. *Clinical Psychology Review, 29*(3), 216–229.
59. Orwell, G. (1946). Animal Farm. New York: Harcourt, Brace & Company.
Paris, J. (2013). DSM-5: Handle With Care. [Web log post]. Retrieved December 6th, 2016, from http://www.neuropsychotherapist.com/dsm-5-handle-with-care/
60. Dockrell, J., Ricketts, J., Palikara, O., Charman, T., & Lindsay, G. (2012). *Profiles of need and provision for children with language impairments and autism spectrum disorders in mainstream schools: A prospective study*. Department for Education.
61. Available at https://www.dyslexia.com/about-dyslexia/dyslexic-achievers/)

similarly. Lack of focus and concentration may be seen in both ADHD and TBI. Individuals with ADHD have more accidents, drive faster and are impulsive, and this may result in TBI. Both ADHD and TBI have been noted to be more prevalent in offending populations than the general population.[62] Of course, some offenders will have TBI *and* ADHD. However, if we don't ask questions specifically relating to this, then head injury as a reason for lack of focus could be missed.

Taking a whole prison approach

So is the role of the prison system to diagnose learning difficulties and disabilities or to support those who are most vulnerable? Practically, can specific provision be made for up to one third of the prison population? How does one decide who is the most in need of support? As the total impact for one person may be the sum of a number of factors, some residing within the individual (such as if they have several areas of difficulties including learning and mental health challenges), and also some relating to their external factors (e.g. homelessness, lack of education, lack of family support, financial difficulties), there is a clear need for screening processes. However, in order to deliver the system of support, it also requires staff to have some knowledge about learning difficulties and disabilities, including how they present, and have practical strategies at their fingertips which they can use to ensure communication is effective and appropriate.

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McCarthy et al.[63] looked at Learning Disability and Learning Difficulties (referred to as 'NeuroDevelopmental Disorders' or 'NDD') in the context of offending settings, and made a pertinent point that 'screening is not sufficient without training of prison staff to recognise signs of NDD and know how to respond effectively to people with NDD' (p.107).

Staff training can result in an environment where anticipatory adjustments are put in place. It can mean that:

- ❒ Staff are able to confidently ask individuals how their disability impacts on them, allowing for a more open dialogue.
- ❒ Provision of practical tips (Five Minute Interventions); see *'Do-It Profiler and Offending Settings'* website[64] for free download guide with easy to use strategies.
- ❒ Consideration is made to ensure accessibility of written materials for example is not an after-thought. It is quite easy to run a readability check on materials as a starting point. This is built into Microsoft Word and there are web-based programmes to do this also; see *'Readability of the Materials'* website by Kirby.[65]
- ❒ 'Champions' such as peer mentors (and staff) are present in the CJS to encourage individuals to see that it is OK to disclose and creates a more positive view.
- ❒ Information sharing systems and referral systems are developed to clarify what help is available and by whom.
- ❒ Peer mentoring systems are in place to support those with learning challenges especially at times of transition.

How can technology help with person centred approaches?

In this paper we have highlighted a range of inconsistencies in definitions and operations, along with the challenge of pulling information together in order to gain a better understanding of an offender's challenges in the context of their lives both past and present. Until recently, it would have been impossible to integrate this information and be able to provide instant and person-centred guidance.

A computer based modular and accessible screening and assessment system has been developed over a ten-year period working with prisons firstly using paper based versions of the tools, and then translating them into accessible multi-module online formats. The system was then trialed to ensure the content was valid, accessible and delivered person-centred resources which were contextually appropriate for the prison sector.

Do-IT Profiler[66] takes a bio-psychosocial approach system and has been trialed in 16 prisons in the UK. It is a modular system with the means of providing screening for traits of learning difficulties and

62. Schofield, P. W., Butler, T. G., Hollis, S. J., Smith, N. E., Lee, S. J., & Kelso, W. M. (2006). Neuropsychiatric correlates of traumatic brain injury (TBI) among Australian prison entrants. *Brain Injury, 20*(13–14), 1409–1418.
63. McCarthy, op. cit.
64. Available at http://doitprofiler.com/offenders/
65. Available at https://www.linkedin.com/pulse/readability-materials-what-does-accessibility-really-mean-kirby?published=u)
66. Available at www.doitprofiler.com

disabilities. Assessment, tools and resources also can be on the system relating to literacy, numeracy, wellbeing and for training for work skills and resettlement.

The system has been developed to be accessible which means that it is potentially translatable, with options for an offender to choose their preferred language (e.g. Welsh, Polish, Arabic, or Spanish), while at the 'back end' of the management system the information remains in English for staff to access. The integration and analysis of information is undertaken through the management information platform which provides instant person-centred feedback for the individual, as well as guidance for staff. This staff guidance also can help to upskill staff, thus raising their confidence.

In this paper we introduce the Profiler System but in subsequent papers the authors aim to describe more specific findings from some of the data captured. It is starting to demonstrate the complexity of the offenders' profiles in determining a single diagnostic label and showing the need to encompass the varying factors in each person's lives, as described above, to ensure we gain a more complete picture. In a snapshot of data from one sample of 2405 male offenders across two prisons, we have found that they reported the following:

Educational factors

56% of offenders had been excluded from school more than once. Of those excluded, 48% reported having been excluded more than four times.

45% reported not being at school more than 50% of the time, with 22% not present at all or less than 25% of the time.

19% had been told by someone they had a learning difficulty.

27% reported leaving school before the age of 14 years.

21% reported receiving support in school.

7.8% reported being in contact with Learning Disability Services.

Health factors

16% of the total offenders reported having a head or face injury.

With 63.5% of this group reporting a loss of consciousness, and 38% reporting it affected their concentration or vision. 86% of this group also reported seeing a doctor or went to hospital because of the injury.

40% reported being depressed and 32% reported being anxious.

25.8% reported currently having or had substance misuse problems, such as with alcohol or drugs (legal and illegal).

External factors

12.5% of individuals reported being homeless before entering the CJS, with 15.5% homeless when coming into the initial short 'stay' prison. While this data does not demonstrate causal mechanisms, and thus we cannot make inferences, further exploration will examine the interactions between the external factors and the degree and pattern of learning difficulties and disabilities. What it does show is that there are significant 'other' factors at play, as well as learning difficulties and learning disabilities and so this information cannot be considered in isolation.

The challenges of using a computer system

Delivering a 'closed' system on an intranet, which is accessible and robust, has taken some development and has not happened overnight. Developing guidance that is contextually appropriate has been done by working in collaboration with the prisons. Additional information and training on learning difficulties and disabilities has been placed within the system also for staff to access. Recent development of more advanced analytical tools in the system means that not only can we tell how many offenders have difficulties with learning in the past, but how these are impacting on their mental wellbeing now and who they are, allowing more targeted support. When the system was first used in prisons laptops were used and data was up and downloaded from USB sticks. This was time consuming and put another layer of work into the system. Now the potential to have prison intranet systems with tablets in prison cells means that gathering information and delivering personalised support is a very different proposition. IT skills among prisoners and staff have also changed during this time. The data is instant, live, analysed and available, meaning that the person coming into prison can be supported more effectively and service planning can be done much quicker.

Conclusions

It seems that when at least one third of the prison population have increased vulnerabilities caused by multiple factors, some of which are related to barriers to learning, there is a need for cost effective and pragmatic solutions. Identification of an individual's needs is one part of the solution to providing tailored but practical support, which can also be used by that person when they leave the prison setting. Another part to this equation must be skilling staff in understanding different behaviours and being confident of using some practical strategies. A third part is creating an environment that is anticipating that these numbers exist and ensuring needs are considered at a service design stage (e.g., If one in three have difficulties reading information, then written materials need to be in accessible in the appropriate reading level). We believe this means more than a knee jerk response to provide 'easy read' materials but requires alternative offerings such as videos, photos, and sound recordings. The result of a person- centred approach is that we move not only to support the 30 per cent moving through the CJS, but the other 70 per cent. This surely has to be a cost effective solution and means that the few that require further expert care can be provided with this, as more people accessing help will be able to use self-managed resources. The alternative is to continue to try to squeeze people into boxes, reducing the assistance to the few. With services stretched, this will mean potentially no assistance given to some that were missed by education before.