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Evaluation of Values Based Recruitment (VBR) in the NHS



Literature Review and Evaluation Criteria
Executive Summary
February 2014

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Work Psychology Group has over 20 years' experience of designing and evaluating assessment and recruitment methodologies for high stakes selection in healthcare, finance, engineering and professional services. The team is made up of experienced consultants who have worked in both research and industry, giving a unique blend of organisational and academic expertise, ensuring the latest research can be turned into practical, innovative solutions.

To read a little bit more about the Work Psychology Group and their work please visit their website: www.workpsychologygroup.com.

1. Objectives

- 1.1 Values based recruitment (VBR) has been identified as a core objective in the NHS Health Education England (HEE) Mandate (April 2013 to March 2015) and is recognised as a key priority for HEE and the Local Education and Training Boards (LETBs).
- 1.2 The key objectives of the evaluation of VBR include:
 - Ensuring that the VBR programme is supported using an evidence-based approach. The literature review forms a core part of providing an appropriate evidence base.
 - Providing the evidence base on the selection and recruitment methods available to assess values.
 - Supporting and guiding the work of Projects 1 and 2 in developing a framework and guidance for VBR and understanding of evidence based tools and resources to support organisations to implement VBR locally, and the national direction of the VBR programme.
 - Ensuring that the impact of recruiting for values for NHS funded training programmes and employment is evaluated through design of longitudinal tracking.

2. Literature Review of Values Based Recruitment

- 2.1 In the context of influencing culture and values within an organisation, the evidence clearly shows the need for a multifaceted approach to organisational values beyond recruitment issues alone.
- 2.2 There is a complex relationship between values and other attributes such as personality, ability and motivation which means assessing and measuring values for recruitment is challenging and less straightforward than assessing abilities and skills. In summarising the relationship:
 - Values are motivational goals that influence behaviour
 - Values primarily impact the goals that individuals choose to pursue (goal content), while personality traits primarily impact the amount of effort that individuals exhibit in pursuit of those goals (goal striving)
 - Personality represents behaviours that come most naturally, whereas values reflect effort (a choice) to behave a certain way. This is an important distinction when considering selection tools.
- 2.3 Organisational values are represented (and measured) by the values of the key members of the organisation i.e. the workforce. Therefore, individuals recruited with optimal values for the delivery of high quality compassionate care, may be at risk of changing practice if placed within teams with suboptimal values.
- 2.4 The research evidence relating to VBR directly is limited. However, our review provides links to other more established concepts in the literature that inform our understanding of how to best assess values in recruitment. Our review notes the existence of a diversity of measurement tools claiming to be of use for values-based recruitment. A single VBR tool

used for attraction and marketing purposes may be appropriate in conveying the values and behaviours expected across the NHS. However, if there is a need to assess values in order to make selection decisions (either at pre-screen or interview stage) then a single tool is unlikely to be appropriate. The research evidence suggests that a tailored approach is more likely to accurately assess the diverse requirements of different job roles across the NHS.

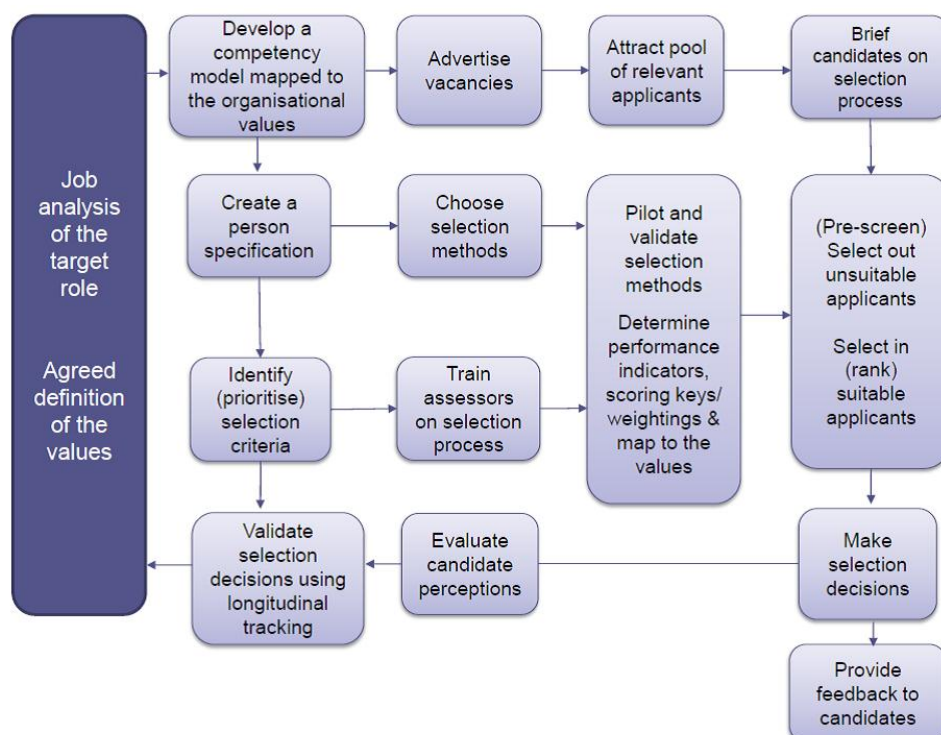
- 2.5 Recruiters responsible for making decisions during VBR will have a significant impact on the outcomes. It is important to ensure that those responsible for recruitment (particularly when interviewing) represent the values the organisation is seeking to attract.

3. Key Concepts in Selection

- 3.1 Key concepts in best practice selection relevant to VBR range from job analysis to identify the knowledge, skills, values and behaviours associated with competent performance and organisational fit in the target role through to longitudinal validation to track the long term impact of VBR.

- 3.2 Figure 1 outlines the main elements involved in designing and implementing a best practice selection system. The process starts by conducting a thorough analysis of the relevant knowledge, skills, abilities and attributes associated with performance in the target role. This information is used to construct a person specification (and job description where appropriate mapped to the organisational values). This is used to decide which selection instruments are best used to elicit applicant behaviour related to the selection criteria. In deciding to apply for a post (or a place at university), applicants will engage in self-selection where they can make an informed judgment about whether the particular role suits their skills, abilities and values.

Figure 1 Designing and implementing a best practice selection system



- 3.3 Validation studies are important to improve accuracy and fairness but executing validation studies is complex in practical terms as recruiters rarely use a single predictor to make selection decisions. And applicants are judged on multiple selection criteria which may include indicators of aptitude, attainment, in addition to values.

4. Evaluation Criteria for Selection

- 4.1 Evaluation criteria with which to judge the effectiveness and efficiency of various selection methods have been reviewed consistently in the research literature over several decades (Arnold et al, 2010; Smith & Robertson, 1993; Schmitt, 2012; Patterson, 2008; 2012; Cleland et al, 2012). Table 1 overleaf details sixteen key evaluation criteria in each of these domains relevant to the VBR agenda.
- 4.2 These evaluation criteria can be categorised into four broad domains including: accuracy and effectiveness; cost and efficiency; practicalities associated with the implementation; and, stakeholder acceptance and feedback.
- 4.3 Each criterion is not mutually exclusive – it is possible for some criteria to be at odds with one another and recruiters may decide to prioritise (weight) certain criteria more than others.

Table 1 Evaluation criteria for selection methods

Category	Evaluation Criteria	Description	How can this be evidenced?
Accuracy and effectiveness	1. Evidence of reliability	<i>A selection method is reliable if it is consistent in how it assesses candidates under varying conditions. For example, it should not make a difference if a candidate sits the test in the morning or afternoon.</i>	<ul style="list-style-type: none"> • <i>Psychometric evaluation by experts</i>
	2. Evidence of validity	<i>The selection tool measures what it claims to measure, it should be relevant, precise and accurate.</i>	<ul style="list-style-type: none"> • <i>Psychometric evaluation by experts</i>
	3. Arrangements for on-going validation, evaluation and development are in place	<i>Best practice selection is an iterative process, starting with a job analysis to define the selection criteria. After selection has taken place, the predictive validity of various selection tools can be evaluated. Results from validity studies are then used to review the original selection criteria and choice/design of selection methods. Information here can be used to make continual improvements and help to develop the process to optimise selection decisions.</i>	<ul style="list-style-type: none"> • <i>Appropriate data is collected</i> • <i>Validation data is analysed by experts in selection</i>
	4. Susceptibility to coaching	<i>The extent to which access to coaching taken to improve a candidate's test-taking skills and provide an advantage to a candidate's standing in the selection process.</i>	<ul style="list-style-type: none"> • <i>Comparison group research studies</i>
	5. Fairness, promotes diversity/ widening access	<i>This is based on three principles; 1) valid selection criteria; 2) accurate and standardised administration by trained staff; 3) monitored outcomes. Meets equalities impact assessments.</i>	<ul style="list-style-type: none"> • <i>Evaluation questions posed to candidates.</i> • <i>Analysis of sub-group differences</i>
	6. Legality	<i>The extent to which the design of a selection process and the decisions generated is legally defensible. Selection processes that are perceived as unfair are more likely to result in legal case initiation.</i>	<ul style="list-style-type: none"> • <i>HR experts in employment law</i>
Cost and efficiency	7. Scalability for high volume recruitment	<i>The extent to which a selection process can be scaled up or down and remains efficient and effective for different volumes of applicants.</i>	<ul style="list-style-type: none"> • <i>Data modelling with interpretation of costs of implementation and validity of selection methods</i>

	8. Efficiency	<i>The costs involved and the time taken in developing and implementing the selection tool(s).</i>	<ul style="list-style-type: none"> • Analysis of costs by recruiters and managers
	9. Utility	<i>The costs involved and the time taken to develop more accurate adequate procedures need to be balanced with the potential benefits (e.g. improved performance)</i>	<ul style="list-style-type: none"> • Statistical analysis of the predictive validity a selection tool adds to the accuracy of selection decision-making, compared to the costs to design and implement the tool (using established utility calculation methods)
	10. Generality of use	<i>The degree to which a selection tool used in one context can be transferred or tailored for use in another context or role</i>	<ul style="list-style-type: none"> • Judgement by recruiters
Practicalities and implementation	11. Practicality (ease of administration/ efficiency)	<i>The procedures should be acceptable within the organisation and capable of being implemented effectively. Those responsible for administering the procedures may need to be trained.</i>	<ul style="list-style-type: none"> • Judgements by recruiters and administrators
	12. Expertise required for analysis & interpretation of information generated by the tool	<i>Some selection tools (e.g. personality tests) require an appropriately trained individual to administer, score and provide feedback. Similarly, assessors in selection centres must also be appropriately trained in how to evaluate a candidate in a work sample test for example.</i>	<ul style="list-style-type: none"> • For psychometric tools there are specific licensure guidelines (e.g. from the British Psychological Society)
	13. Ease of interpretation	<i>The degree to which the information generated by the selection tool provides clear and appropriate information relating to a candidate's competence and aptitude for the role.</i>	<ul style="list-style-type: none"> • Judgement by recruiters and stakeholders
Stakeholder acceptance and feedback	14. Positive employee/trainee/ student perceptions	<i>The extent to which employees, trainees or students react positively to the selection process and each selection method within that process. Positive perceptions will result in the candidate being more attracted to joining the organisation</i>	<ul style="list-style-type: none"> • Evaluation questionnaires of candidate perceptions
	15. Generates appropriate feedback	<i>When using selection tools, e.g. personality assessments, it is good practice to ensure that candidates receive appropriate and useful feedback.</i>	<ul style="list-style-type: none"> • Evaluation questionnaires of candidate perceptions • Judgements by recruiters
	16. Educational impact/value	<i>The extent to which candidates obtain useful information to inform their future education, learning and development.</i>	<ul style="list-style-type: none"> • Evaluation of candidate and employer perceptions

5. Selection Methods for Values Based Recruitment

- 5.1 The established evidence on the selection methods available for VBR was reviewed. Much of the evidence base on selection methods in healthcare comes from the medical and dental recruitment literature with some contributions from nursing. Evidence from the broader occupational research literature internationally was also reviewed.
- 5.2 The selection methods reviewed include: Interviews (situational, behavioural, MMIs, and group based); References; Application forms; Personal Statements; Personality and Emotional Intelligence Testing; Situational Judgement Tests; Selection/Assessment Centres. A key message is that it is necessary to clearly articulate what constitutes each of these selection methods as there is a great deal of variability in practice.
- 5.3 The current evidence for the effectiveness of each method was reviewed and an analysis of the quality of different selection methods to achieve VBR. In Tables 2a and 2b, we provide a summary of the implications of the research evidence for VBR relating to both the pre-screening and selection phases of recruitment.

Table 2a. Implications of the research evidence for implementing pre-screening methods for VBR

Selection Methods	Implications of the research evidence for VBR
Personal statements	The evidence is weak for the use of personal statements and whilst personal statements have high candidate acceptability, the susceptibility to coaching is also high. The evidence suggests they are <i>not an effective method for VBR</i> .
References	The use of referees' reports remains widespread in selection although there is little research evidence to support the validity or reliability. The evidence suggests they are <i>not an effective method for VBR</i> .
Situational judgement tests	Situational judgement tests (SJTs) show improved validity over other selection measures including cognitive ability and personality tests and can be mapped to organisational values. While they can be relatively costly to design, since SJTs are scored using a pre-determined key, SJTs are machine-markable and can be delivered on-line. This can produce substantial cost savings in high volume selection as the tests can be machine-marked. Given the evidence, <i>they can be an effective method for VBR</i> .
Personality testing	Practically, in operational high stakes selection, there are concerns regarding faking with personality assessments. Where there is a high risk of susceptibility to coaching, it is best practice to <i>use personality assessment to drive more focused questioning at interviews</i> (rather than a stand-alone instrument without verification). <i>Personality measures may be more useful at the attraction phases of VBR</i> as part of self-assessment or selection for roles within the NHS.

Table 2b. Implications of the research evidence for implementing final stage selection methods for VBR

Selection Methods	Implications of the research evidence for VBR
Traditional Interviews	Across many of the key evaluation criteria, traditional (e.g. unstructured) interviews perform poorly. The evidence for traditional interviews is they lack reliability and validity and therefore are <i>not suitable for VBR</i> .
Structured Interviews e.g. competency-based, situational, multiple-mini interviews	Where interviews are based on a thorough role analysis, use structured and standardised questions with trained interviewers and appropriate scoring, these <i>can be effective methods for VBR</i> , although they are relatively resource intensive.
Group Interviews	While group interviews may appear more cost efficient in terms of assessor time, evidence for reliability and validity is lacking. Group interviews are <i>unlikely to be an effective method for VBR</i> .
Selection centres using work samples e.g. group exercise, written/in-tray task, presentations, interactive exercises	When designed appropriately, selection centres are valid predictors of job performance when the exercises are used in combination. Effective SC exercises require time to design and assessor and role actor input, and so they can be costly, but they <i>can be an effective method for VBR</i> .

6. Next Steps and Recommendations

- 6.1 The information presented here provides an evidence base to guide next steps in VBR Projects 1 and 2. The following recommendations are presented against the three core stages of VBR; Attraction; Pre-screen; and Selection Processes/Methods.

Attraction

Recommendation 1 (Feb-May 2014): Identify VBR selection methods that are appropriate and effective for self-selection purposes. Conduct a detailed desk review of identified case examples from HEIs and NHS providers. This review will seek to differentiate between VBR tools which are primarily used for attraction and self-selection as opposed to those tools which are designed primarily for selection, either pre-screen (shortlisting) or final stage selection (interviews). An important consideration will be the extent to which any identified tools are valid and credible to key stakeholders across different professional groups.

Pre-Screen

Recommendation 2 (Feb-Aug 2014): Develop guidelines on how to effectively map NHS values to competencies and job roles for assessment purposes at pre-screen stage. Conduct a detailed desk review of identified case examples from HEIs and NHS providers. This review will identify examples where this has been conducted successfully in practice and will document guidance on how best to map values to competencies effectively.

Selection Processes/Methods

Recommendation 3 (Jan-Feb 2014): Design a data template for the baseline evaluation measure. Using the definitions and descriptions from the literature review, define what constitutes each selection method. Pilot the template and gather feedback from key stakeholders to ensure it generates sufficient granularity of data regarding the various selection methods used for VBR. Appropriately designed, the template will help HEIs and NHS providers to effectively self-assess and achieve a more accurate baseline measure for longitudinal evaluation (differentiating between methods for attraction, pre-screening, and assessment for selection). Data gathered will ultimately inform return on investment of the VBR programme in the medium to long-term.

Recommendation 4 (Feb-Aug 2014): Review case examples of VBR selection methods (from HEIs and NHS providers) using the identified evaluation criteria. Using the examples identified by Project 1 and 2, conduct a detailed desk review of the case material by applying the evaluation criteria for VBR. Where methods are new or recently introduced, guidance will be provided about the most appropriate approach to validation to measure accuracy and effectiveness in the future.

Recommendation 5 (by October 2014): Generate best practice examples of VBR selection methods for shared learning to be included in any future VBR framework.

These may include examples of:

- How to design and deliver effective values based interviews (for example, identifying differences between types of interviews and strengths for VBR).
- Best practice selection centre exercises and methods (based on research evidence).
- Guidelines and examples for recruiters in making judgements about appropriate/high quality selection methods (for example, what to look for in evaluating appropriateness for VBR).

Recommendation 6 (May 2014-March 2015): Design an appropriate VBR tool(s) for roles where there is an identified need. Most of the evidence of effective VBR tools is focused on medical and dental professions. Our review suggests that there would be some merit in designing tools to address the recruitment of other professions. For example, in the recruitment of pre-registration nurses and healthcare assistants (HCAs), which together account for 59% of the care workforce (Cavendish, 2013) but where there is less evidence of robust VBR tools being used in practice. This presents a significant opportunity for HEE to more effectively address VBR for these roles by developing valid pre-screening tools (other than personal statements and reports from referees), building of current pilots. A significant challenge for these roles is in managing large applicant numbers in a robust yet efficient manner for VBR. Pilots could be instigated with evidence of validity gathered by March 2015.

Recommendation 7 (by Aug 2014): Design a specification for the outcome variables to be used in the longitudinal validation and evaluation. A detailed review of the parameters and data required for longitudinal validation will be undertaken. This will include identifying the outcome variables (the criterion) upon which the success of VBR will be measured. Practical challenges to delivery are anticipated therefore sampling of identified case material is likely to be most effective. The implications regarding the practicality of data collection, analysis and consent issues will be reviewed.

Recommendation 8 (Feb-Aug 2014): Develop a strategy for dissemination of findings from the evaluation. Identify key stakeholders to target the dissemination of findings. Agree how best to disseminate the output from the literature review to a broader audience. This could include, for example, targeting a publication in a journal.

Recommendation 9 (by Aug 2014): Update and extend the Project 1 Options Paper using the evidence presented in the literature review. Working with Project 1 the previously developed paper detailing options for the national approach taken for VBR will be reviewed and extended. In particular an analysis of the cost and scalability of designing and implementing selection methods (new and existing) for VBR will be documented.