

# Generating HRD Related ‘General Knowledge’ from Mode 2 ‘Design Science’ Research: A Cumulative Study of Manager and Managerial Leader Effectiveness

Robert G. Hamlin

University of Wolverhampton, UK

*This paper illustrates how Mode 2 ‘design science’ research can generate HRD related ‘general knowledge’ in support of evidence-based practice. It describes a ‘derived-etic’ study that compares and contrasts the findings of six previous ‘emic’ studies previously carried out within six different public and private/corporate sector organizations in the UK. The results of the study have led to the emergence of seventeen ‘generic behavioral criteria’ of manager and managerial leader effectiveness.*

Keywords: Manager/Managerial Leader Effectiveness, Generic Behavioral Criteria, Mode 2 Design Science

Swanson (1997) argues that “without research and its practical use, poor practice in the profession can continue for long periods of time while undermining the credibility of HRD” (p.4), and that it is critical for “thoughtful practitioners [to] recognize they are in a perfect position to advance the profession through ‘backyard research’ embedded in the ongoing work of the organization” (p.12). Other writers have similarly called for research-informed and/or evidence-based approaches to practice (Hamlin, 2002a & 2006a; Holton, 2004; Russ-Eft, Preskill and Sleezer, 1997, Short, 2006). However, HRD and its core component-management and leadership development-lacks a sound and sufficient empirical base (See Fiedler, 1996; Hamlin and Stewart, 1998; Woodall and Winstanley, 1998). Consequently, in the absence of relevant and usable “knowledge obtained through an orderly, investigative [research] process” (Swanson, 1997: p.10), there can be no body of generalised ‘best evidence’ to draw upon to support ‘evidence-based’ or ‘research-informed’ practice.

Similarly, there is a dearth of relevant, generalized empirical findings to support research-informed and/or evidence-based management which are concepts advocated by writers such as Axelsson (1998), Brewerton and Millward, (2001) and Stewart (1998). As Adler, Shani and Styhre (2004) claim, management research continues to be divorced from the world of practice. This is because it has been overly theoretical and abstract and does not recognize sufficiently the problems and challenges facing the acting manager (Tranfield and Starkey, 1998; van Aken, 2004). The much talked about ‘relevance and utility gap’ in management research is seen by many as problematic, and has been the subject of much debate (Aram and Salipante, 2003; Starkey and Madan, 2001; MacLean, MacIntosh and Grant, 2002). Starkey and Tempest (2004) argue these concerns resonate with similar long standing debates in the United States about the lack of external relevance and utility of management science, and the lack of impact it has had on management practice caused by little attention having been given by researchers to the ‘soft stuff’ of managing (See Bennis and O’Toole, 2005; Das, 2003; Ghoshal, 2005; Mintzberg, 2004; Rynes, Bartunek and Daft, 2001).

## Theoretical Framework

Various debates in the British management literature have led to a distinction being made between Mode 1 knowledge production-which is purely academic and mono-disciplinary, and Mode 2 knowledge production-which is multi-disciplinary and aims at solving complex and relevant field problems (Nowotny, Scott and Gibbons, 2001). van Aken (2005) argues a possible product of Mode 2 research is ‘knowledge for action’ (Argyris, 1993) that can be used in contexts other than the ones in which it has been produced. She likens this to research in the *design sciences* such as medicine and engineering where the aim of most research is “to develop knowledge that the professionals of the discipline in question can use to design solutions for their field problems” (p. 20). Whereas in the applied field of organization and management *descriptive* knowledge produced by Mode 1 *description-driven* research based on the paradigm of the *explanatory sciences* results in what she calls Organization Theory, in contrast, *solution-oriented* knowledge produced by Mode 2 *prescription-driven* research based on the paradigm of the *design sciences* can produce *solution-oriented* knowledge which results in what she calls Management Theory. She argues it is possible to identify *technological rules* (general statements) based on stable patterns of human conduct observed in one or more specific contexts, that can be translated and transferred to other specific contexts through a process of

redesign from the general to the specific. van Aken (2004, p 228) defines a *technological rule* as “a chunk of general knowledge linking an intervention or artefact with a desired outcome or performance in a certain field of application”. The ‘general’ in this definition means that it is not a specific prescription or solution to a specific problem, but a general prescription or solution for a class of problems. She claims a *technological rule* can be developed through two types of multiple-case studies, namely the *developing* multiple-case study in which “a series of problems of a particular type is solved in collaboration between the researcher(s) and the local people” and the *extracting* multiple-case study in which “best practices in solving problems of a particular type are analysed” with the aim of uncovering *technological rules* as already used in practice (van Aken, 2005: 24). After an initial series of cases, *technological rules* are developed by reflection and induction, and subsequently tested and refined by adding more cases using ‘replication logic’ and ‘cross-case analysis’ (Eisenhardt, 1989). Drawing upon Aram and Salipante’s (2003) argument that knowledge becomes ‘relevant’ when it is context specific, van Aken (2005, p.31) extends this statement to “general knowledge is ‘relevant’ to the extent it is known how it can be translated to specific contexts”, and claims a *technological rule* “can be relevant for certain contexts and not, or less so, for others”.

Consistent with van Aken’s call for Mode 2 design science and multiple-case study research to generate ‘general knowledge’ relevant to other specific contexts, and drawing upon Johnson and Duberley’s (2003) concept of *methodological reflexivity*, Worrall (2005) has sought to develop a more pluralistic research strategy for asking better research questions that lead to the production of more ‘relevant’ general knowledge. To help management researchers situate and define more appropriately their choice of research methodology, method and strategy, he has developed a ‘four-cell’ *ontological-epistemological framework* comprised of quadrants that characterize four different methodological paradigms. Ontologically, researchers can aim their research either towards identifying single ‘truths’ or complex ‘truths’. Additionally, they can base their research either on the epistemological stance of simplified ways of ‘knowing’ or complex ways of ‘knowing’. Quadrant 1 research is concerned with single ‘truths’ and simplified ways of ‘knowing’, and equates to ‘normal science’ using ‘the scientific method’. In Quadrant 2, which is concerned with single ‘truths’ and complex ways of ‘knowing’, the research subjects studied are accepted as complex, but the tendency is to resort to adaptations of dominant research protocols and orthodoxies of established disciplines to understand complexity. In Quadrant 3 research, which is concerned with complex ‘truths’ and complex ways of ‘knowing’, the multiple realities of the differing views of the researcher and research subjects are accepted and explored on many levels using both established research protocols and newly devised methods to make sense of the complexities. The object and subject are seen to interact in a complex way and ‘constructivism’ prevails. In Quadrant 4 research, which is concerned with complex ‘truths’ and simplified ways of ‘knowing’, the differing views of researchers, research protocols and research subjects are accepted as in Quadrant 3, but the studies focus on synthesizing these into *unified perspectives*. Such unified perspectives are derived from different forms of what Pawson (2002) refers to as a process of *realist synthesis* for generating bodies of ‘best evidence’ in support of evidence-based policy and practice in management. It is the author’s contention that Worrall’s call for a pluralistic research strategy in the field of management science also has relevance in the related field of HRD. This view is supported by the call of McGoldrick, Stewart and Watson, (2001) for a linking of ontology, epistemology and axiology in HRD research, and the more recent calls of Torracco (2004) and Storberg-Walker (2006) for multi-paradigm theory-building research methods in order to generate both better and more HRD theories.

This paper attempts to respond to the calls of Torracco and Storberg-Walker by illustrating the application of van Aken’s (2004; 2005) concept of Mode 2 *design science* research, and Worrall’s (2005) *ontological-epistemological framework*. Specifically, it reports the results of an HRD related *derived-etic* multiple case study that used as its primary data the findings from several replica/near replica *emic* case studies into the issue of managerial and leadership effectiveness within public and private/corporate sector organizations in the UK.

## **Purpose and Research Questions**

The purpose of the present study was to explore the feasibility of developing a body of *general knowledge* relating to the specific issue of manager and managerial leader effectiveness based on *general statements* resulting from six *problem driven, solution-oriented* and context specific ‘replica’ studies previously carried out in the UK, of which five were conducted as HRD professional partnership research of the kind advocated by Jacobs (1997) and Hamlin (2002b). Findings from the three earliest studies, which took place in the UK secondary education, central government agencies, and healthcare sectors respectively, had previously been subjected to an inductive and deductive cross-case analysis using ‘comparative logic’ and ‘replication logic’ (Eisenhardt, 1989). This resulted in the identification of a public sector oriented ‘generic model’ of managerial and leadership effectiveness (Hamlin, 2004) which accords with van Aken’s (2005) definition of a *technological rule* and *general knowledge*. Building

upon this previous work, the first aim of the present study has been concerned with '*testing and grounding*' the '*technological rules*' of the public sector oriented 'generic model' by adding more [replica]cases as commended by van Aken (2005). The second aim has been to refine and extend the existing 'generic model' by identifying, if possible, a revised *unified perspective* (Worrall, 2005) in the form of a 'new' generic framework generalized to both public and private/corporate sector organizations. The behavioral statements underpinning each of the criteria comprising Hamlin's 'generic model' have been compared and contrasted against the behavioural findings from three recent replica/near replica studies of manager and managerial effectiveness carried out respectively within a public sector 'specialist' NHS Trust hospital (Hamlin and Cooper (2005), a private sector 'professional communications services' company (Hamlin and Bassi, 2006), and a 'telecommunications' related Group plc (Hamlin, 2006b). From here on these added cases will be referred to as the 'BWHCT', 'XYZ' and 'TLFN' case studies respectively, and Hamlin's 'generic model' will be referred to as 'HGM'. The present study addressed the following research questions:

1. To what extent are the behavioral indicators of manager and managerial leader effectiveness manifested within the 'BWHCT', 'XYZ' and 'TLFN' organizations the same as, similar to, or congruent in meaning with the behavioral statements underpinning the 'HGM' criteria?
2. Resulting from Question 1, which of the 'HGM' criteria are grounded in and generalized across all three added cases?
3. To what extent do the behavioral indicators of the three added cases enrich the '*thick description*' of the *technological rules* represented by the behavioral statements underpinning the 'HGM' criteria?
4. Resulting from Question 3, in what way do the descriptive labels and behavioral underpinning of the existing 'HGM' criteria need to be refined, and to what extent do 'new' generic behavioral criteria emerge, if any?

## Methodology

In order to systematically review and compare the purposive sample of primary cases used for the present study, the author adopted a neo-empiricist stance (Alvesson and Deetz, 2000) by assuming a realist ontology and interpretivist epistemology, and used simple comparative and cross-case analytic approaches (Eisenhardt, 1989) that broadly accorded with the principles of *realist synthesis* (Pawson, 2002). To address Research Questions 1 and 2, the comparative analysis was carried out deductively using a form of content analysis (Flick, 2002). The whole meaning and part meanings of each of the 'BWHCT', 'XYZ' and 'TLFN' behavioral indicators were examined for evidence of sameness, similarity or congruence with one or more facets of the overall meaning of one or more behavioral statements comprising the 'HGM' criteria. It was the authors opinion that such evidence would indicate particular 'HGM' criteria having, to a greater or lesser extent, external 'validity', 'relevance' and 'transferability' to specific organizational contexts other than those from which they had been produced. To address Research Questions 3 & 4, all of the behavioral statements comprising the 'HGM' criteria, and all of the 'BWHCT', 'XYZ' and 'TLFN' behavioral indicators, were subjected to cross-case analysis (Eisenhardt, 1989). This involved applying content analysis and thematic coding (Flick, 2002) inductively in search of common *stable patterns of observable* [managerial] *behavior* (van Aken, 2005), and led to the *thick description* (Geertz, 1973) of the existing 'HGM' criteria of managerial and leadership effectiveness being enriched, refined and extended, which called for a redesign of the 'generic model' to form a 'new' generic framework.

A form of 'investigator triangulation' was applied to enhance the reliability and trustworthiness and of the newly emerged generic framework. Working independently of the author, a qualified researcher possessing in depth senior management experience was asked to interpret the meaning of all the 'HGM' behavioral statements and 'BWHCT', 'XYZ' and 'TLFN' behavioural indicators respectively, and then categorize them deductively according to how they aligned with the interpreted meaning of each 'new' label used by the author to describe the criteria comprising the newly emerged generic framework. Overall, there was general agreement regarding their respective interpretations and categorizations. Where minor discrepancies and inconsistencies occurred, these were resolved through discussion and critical examination to reach a consensus.

## Results and Findings

This section reports the results of the simple comparative analysis and the multiple cross-case analysis respectively.

### *Result of the Simple Comparative Analysis*

The whole (or part) meanings of all of the 'BWHCT', 'XYZ' and 'TLFN' behavioral indicators were, to a greater or lesser extent, held in common with and relatively generalized to the whole (or part) meaning(s) of one or more of the behavioural statements comprising the 'HGM' criteria. None of the behavioral indicators proved to be

case/context-specific. Furthermore, at least one behavioral indicator from each of the three added cases was either the same as, similar to, or had some element of congruent meaning with all of the ‘HGM’ criteria, as indicated in Table 1 and illustrated by two examples in Table 2. However, as can be seen in Table 1, a commonality existed with only one of the two components comprising the respective descriptive labels of certain criteria. For example, none of the ‘TLFN’ behavioral indicators contained any facet of behavior that had congruence of meaning with the *-participative and supportive leadership-* component of Positive Criterion 2, or with the *-resistant to new ideas and change-* component of Negative Criterion 5. Furthermore, no commonality was found between this same component of Negative Criterion 5 and any of the ‘BWHCT’ and ‘XYZ’ behavioral indicators.

Table 1. *Comparison of the ‘BWHCT’, ‘XYZ’ and ‘TLFN’ Behavioral Indicators Against the Behavioural Underpinning of the ‘HGM’ Criteria*

<i>‘HGM’ Generic Model of Managerial and Leadership Effectiveness</i> Meaning of the letters in the three adjacent columns <i>c</i> denotes some evidence of congruent meaning <i>n</i> denotes an absence of any relevant behavioral indicator to compare against <i>y</i> denotes a strong degree of sameness/similarity	‘BWHCT’ Study	‘XYZ’ Study	‘TLFN’ Study
<i>INDICATIONS (Positive criteria)</i>			
1. Effective organization and planning/proactive management	yy	yy	yy
2. Participative and supportive leadership/proactive team leadership	yy	yy	ny
3. Empowerment and delegation	y	y	y
4. Genuine concern for people/looks after the interests and development needs of staff	yy	yy	cy
5. Open and personal management approaches/inclusive decision making	yy	yy	yy
6. Communicates and consults widely/keeps people informed	yy	yy	yc
<i>Extent of sameness/similarity and congruence of meaning</i>	y-100%	y-100%	y-73% c-18% n- 9%
<i>CONTRA-INDICATIONS (Negative Criteria)</i>			
1. Shows lack of consideration or concern for staff/ineffective autocratic or dictatorial style of management	yc	yy	cc
2. Uncaring, self-serving management/undermining, depriving, and intimidating behaviour	yy	yy	yc
3. Tolerance of poor performance and low standards/ignoring and avoidance	cy	yy	yc
4. Abdicating roles and responsibilities	y	y	y
5. Resistant to new ideas and change/negative approach	ny	ny	ny
<i>Extent of sameness/similarity and congruence of meaning</i>	y-67% c-22% n-11%	y-89% c- n-11%	y-44.5% n-44.5% n-11%

Table 2. *Illustration of Sameness, Similarity and Congruence of Meaning Between the ‘BWHCT’, ‘XYZ’ and ‘TLFN’ Behavioral Indicators and the Behavioral Statement(s) Comprising a Component Part of Two ‘HGM’ Criteria*

<i>Example of a High Degree of Sameness and Similarity</i>	
<i>‘HGM’ Criterion/Component--Empowerment and delegation</i>	
‘BWHCT’	Positively delegates work to staff (e.g. is fair in delegating work, not just dirty jobs). Gives staff freedom and flexibility in performing duties
‘XYZ’	Effectively delegates tasks and decisions
‘TLFN’	Enables and empowers others to act on their own initiative. Gives to staff responsibility whilst retaining accountability
‘HGM’	Proactively and effectively delegates. Encourages and empowers them [staff] to run their own unit/project and to work through their own problems. Gives them [staff] freedom to make decisions without close supervision
<i>Example of Some Congruence of Meaning Only</i>	
<i>‘HGM’ Criterion/Component--Keeps people informed</i>	
‘BWHCT’	Develops long term strategy with team members and communicates objectives to staff
‘XYZ’	Takes action to enable staff to see the bigger picture. Makes an effort to ensure regular meetings take place with staff
‘TLFN’	Conducts regular effective meetings to set objectives, allocate tasks and review performance
‘HGM’	Holds frequent meetings with staff

### *Result of the Multiple Cross-Case Analysis*

The cross-case analysis revealed very high levels of commonality across the cases which led to all the behavioral indicators comprising the ‘BWHCT’, ‘XYZ’ and ‘TLFN’ data sets being assigned to one or more of the ‘HGM’ criteria. These additions supplemented and enriched the *thick description* of each component comprising the indications (positive criteria) and contra-indications (negative criteria) of Hamlin’s ‘generic model of managerial and leadership effectiveness’. This resulted in the identification of ‘new’ discrete behavioral sub-clusters/categories that were very similar to the components of the existing criteria, but with thicker descriptions. Consequently, the six

‘positive’ and five ‘negative’ criteria comprising Hamlin’s ‘generic model’ were respectively sub-divided into nine and eight ‘refined’ generic behavioral criteria, as indicated in Table 3.

Table 3. *Emergent ‘Refined’ Generic Behavioral Criteria of Manager and Managerial Leader Effectiveness*

	<i>Positive generic behavioral criteria</i>		<i>Negative generic behavioral criteria</i>
1	Effective planning and organization, and proactive execution and control	1	Lack of care and concern for staff
2	Active supportive management and managerial leadership	2	Inappropriate autocratic and non-consultative management style
3	Delegation and empowerment	3	Unfair, inconsiderate, self and self-serving behavior
4	Genuine care and concern for staff and other people	4	Actively undermining and/or intimidating behavior
5	Fights for the interests of their staff	5	Tolerance of poor performance and/or slack management
6	Actively addresses the learning and development needs of staff	6	Ignoring, avoiding and abdicating behavior
7	Open, personal and trusting management approach	7	Depriving and withholding behavior
8	Involves and includes staff in planning, decision making and problem solving	8	Closed mind and negative approach
9	Communicates and consults well with staff and keeps them informed		

As can be seen, in most cases the labels used to best describe the over-arching core meaning of each of the ‘refined’ criteria are the same or virtually the same as the meaning of various parts of the descriptive labels previously used to describe the ‘HGM’ criteria, with some minor variations in wording and emphasis. For example, the two components comprising the negative ‘HGM’ criterion-‘*shows lack of consideration or concern for staff/ineffective autocratic or dictatorial style of management*’-were sub-divided into two criteria labelled ‘*lack of care and concern for staff*’, and ‘*inappropriate autocratic and non-consultative management style*’ respectively. An example of the ‘new’ discrete sub-clusters/categories that emerged from the cross-case analysis can be seen in the way the two components of the positive ‘HGM’ criterion-‘*genuine concern for people/looks after the interests and development needs of staff*’-were subdivided into three criteria labelled ‘*genuine care and concern for staff and other people*’, ‘*fights for the interests of their staff*’ and ‘*actively addresses the learning and development needs of staff*’ respectively. In a similar way, the two components of the negative ‘HGM’ criterion-‘*uncaring, self-serving management/undermining, depriving and intimidating behavior*’- were also sub-divided into three criteria labelled as ‘*unfair, inconsiderate, selfish and self-serving behavior*’; ‘*actively undermining and/or intimidating behavior*’ and ‘*depriving and withholding behavior*’, respectively. All seventeen behavioral criteria that have emerged from the multiple cross-case analysis are clearly derivatives of the ‘HGM’ criteria, and constitute a ‘new’ generic framework.

## Conclusions

A very high degree of sameness, similarity, and congruence of meaning exists between the behavioral indicators of the ‘BWHCT’, ‘XYZ’ and ‘TLFN’ behavioural indicators and the ‘HGM’ behavioral statements, except for a single component of one negative criterion, namely ‘*resistant to new ideas and change*’. The reason for this is unknown. A surprising finding was the absence of any congruence of meaning between the ‘TLFN’ behavioral indicators and the positive criterion component -*participative and supportive leadership*. This might be explained by the fact that the ‘TLFN’ study focused exclusively on directors, heads of department and other executive leaders within the top management team, whereas the three case studies upon which the ‘HGM’ criteria were derived and the ‘BWHCT’ and ‘XYZ’ studies were focused only upon senior, middle and front line managers. Overall, the high level of commonality and relative generalization suggest Hamlin’s ‘generic model’ is, to a greater or lesser extent, generalized to the specific contexts of all six organizations. It also suggests the ‘model’ is likely to be translatable and transferable to public and private/corporate sector organizations in the UK. In light of this finding, and van Aken’s (2005, p. 31) claim that “general knowledge is ‘relevant’ to the extent that it is known how it can be translated to specific contexts”, which implies “a certain chunk of general knowledge can be relevant for certain contexts and not, or less so, for others”, it could be argued that Hamlin’s ‘generic model’ is a sound example of *general knowledge* generated from “field-tested and grounded *technological rules* and *general statements* in management” (ibid. p.23).

Drawing upon Geertz (1973), van Aken (2005, p.24) suggests that *technological rules* should be given with ‘*thick descriptions*’ to aid their understanding and to facilitate their translation from the general to the specific context’, and that “thick descriptions should be based on the field testing and grounding of the rule(s)”. It is the author’s contention that addressing all three research questions of the present multiple-case study has resulted in a set of

'tested and grounded' *technological rules* (generic behavioural criteria) consistent with van Aken's (2004, 2005) definitions. Firstly, they were tested in their intended field of application by using 'comparative' and 'cross-case' analyses to compare and contrast the findings from replica/near replica *problem-driven/solution-oriented* case study research carried out in six different organizational contexts. Secondly, the fact that all of the behavioral statements and behavioral indicators comprising the 'refined' criteria were based on critical incidents obtained using Flanagan's (1954) Critical Incident Technique, means 'it is known why' particular manager/managerial leader behaviors were associated with either effective or ineffective management performance. The process that led to the development of Hamlin's 'generic model', which involved identifying commonalities and relative generalizations across the findings of three context-specific *problem driven* 'replica' HRD professional partnership research studies, can retrospectively be seen as an example of "a *developing* multiple-case study" in which "a series of problems of a particular type is solved in collaboration between the researchers(s) and the local people" (van Aken, 2005, p. 24). Furthermore, the cross-case analysis of the 'HGM', 'BWHCT', 'XYZ' and 'TLFN' findings relating to manager and managerial leadership effectiveness/ineffectiveness can also be seen as an example of an *extracting* multiple-case study in which "best practices in solving problems of a particular type are analysed" and "technological rules are developed by reflection and induction [plus deduction in the present study] and subsequently tested and refined by adding more cases" (ibid, p.25). The end result has been the generation of *general knowledge* consisting of well tested *technological rules* and *general statements* with '*thick descriptions*' that are well grounded in a range of public and private/corporate sector contexts.

The present study also illustrates the application of Worrall's (2005) *ontological-epistemological* framework that he designed to "help us to ask better [management research] questions and provide a more robust basis for subsequent research"(p. 257), and clearly responds to Storberg-Walker's (2006) call for HRD scholars to engage in *multi-paradigm* theory building research and make more explicit their choice of ontology and epistemology in their research designs. For example, the six *emic* case studies that provided the primary data upon which the *derived etic* multiple-case studies of Hamlin (2004) and this author were based, are examples of Worrall's Quadrant 3 type of research for exploring 'complex truths' and 'multiple realities' using *constructivism* as the predominant epistemology. Furthermore, the comparative and cross-case analyses comprising the two *derived etic* studies are examples of Quadrant 4 type research that used the findings of the respective Quadrant 3 *emic* studies to identify a *unified perspective*, namely the seventeen 'new' behavioral criteria that have emerged from the present study

#### *Limitations of the Present Study*

This study has two main limitations that need to be addressed. Firstly, the cross-case analysis of the present *derived etic* multiple-case study was made across six cases only, five of which focused on senior/middle and front line managers and one on top managers/executive leaders. To come to a more general understanding of the indications and contra-indications of manager and managerial leader effectiveness, the present study would have benefited from adding more replica *emic* case studies focused on top managers and executive leaders, particularly in private/corporate sector organizations. Secondly, the present study has been based on empirical findings from UK organizations only. This means the identified generic behavioral criteria should not be translated and transferred to specific contexts in non UK cultures unless first grounded and tested empirically to demonstrate their external validity and relevance in other cultures and countries.

#### **Contribution to New HRD Related Knowledge and Implications for Practice**

The present study offers contributions to the HRD literature by providing empirical evidence that adds not only to what Pelz (1978, p.349) refers to as *conceptual knowledge* (knowledge-for-understanding), but also to *instrumental knowledge* (knowledge-for-action). The manager and managerial leader behaviors comprising the seventeen identified generic behavioral criteria are widely generalized to both UK public and private/corporate sector organizations. This means they could have widespread relevance and utility for management and HRD practice within a wide range of other UK specific contexts. For example, they could be used to inform, shape, or evaluate the content of management and leadership training programs, or the creation of competency frameworks for in-house management development and performance management systems and other HR systems, or used to develop HRD intervention tools for bringing about strategic change in the management culture of particular organizations. The detailed understanding of the respective indications and contra-indications of manager and managerial leader effectiveness resulting from the *thick description* of these 'new' generic behavioral criteria means they can more readily be translated and used by HRD practitioners in other specific contexts. In conclusion, the research addresses the concern of Hamlin and Stewart (1998) that HRD lacks a sound and sufficient empirical base, and provides relevant empirical support for HRD professionals who are striving to become research-informed and evidence-based practitioners.

## References

- Adler, N., Shani, A.B., & Styhre, A. (2004). *Collaborative research in organizations: Foundations for learning, change, and theoretical development*. Thousand Oaks, CA: Sage.
- Aram, J.D., & Salipante, P.F. (2003). Bridging scholarship in management: epistemological reflections. *British Journal of Management*, 14, 189-205.
- Argyris, C. (1993). *Knowledge for action*. San Francisco: Jossey-Bass Publishers.
- Alvesson, M., & Deetz, S. (2000). *Doing critical management research*. London: Sage.
- Axelsson, R. (1998). Towards evidence-based health care management. *International Journal of Health Planning and Management*, 13(4), 307-317.
- Bennis, W., & O'Toole, J. (2005). How business schools lost their way. *Harvard Business Review*, (83)5, 96-104.
- Brewerton, P., & Millward, L. (2001). *Organizational research methods*. London: Sage.
- Cammock, P., Nilakant, V. & Dakin, S. (1995). Developing a lay model of managerial effectiveness: A social constructionist perspective. *Journal of Management Studies*, 32(4), 443-447.
- Das, T.K. (2003). Managerial perceptions and the essence of the managerial world: what is an interloper business executive to make of the academic-researcher perceptions of managers? *British Journal of Management*, 14(1), 23-32.
- Eisenhardt, K.M. (1989). Building theories from case study research. *Academy of Management Review*, 14, 532-50.
- Fiedler, F.E. (1996). Research on leadership selection and training: One view of the future. *Administrative Science Quarterly*, 41, 241-250.
- Flanagan, J.C. (1954). The critical incident technique. *Psychological Bulletin*, 51(4), 327-358.
- Flick, U. (2002). *An introduction to qualitative research* (2<sup>nd</sup> ed.). London: Sage.
- Geertz, C. (1973). *The Interpretation of Culture*. New York: Basic Books.
- Ghoshal, S. (2005). Bad management theories are destroying good management practice. *Academy of Management Learning & Education*, 4(1), 75-91.
- Hamlin, R.G. (2002a). Towards evidence-based HRD practice. In Jim McGoldrick, Jim Stewart & Sandra Watson (Eds.) *Understanding human resource development: A research-based approach* (pp. 93-121). London: Routledge.
- Hamlin, R. G. (2002b). In support of evidence-based management and research-informed HRD through HRD professional partnerships: An empirical and comparative study. *Human Resource Development International*, 5(4), 467-491.
- Hamlin, R. G. (2004). In support of universalistic models of managerial and leadership effectiveness: Implications for HRD research and practice. *Human Resource Development Quarterly*, 15 (2), 189-215.
- Hamlin, R.G. (2006a). Towards evidence-based management development. In Rosemary Hill & Jim Stewart (Eds.) *Management development: Perspectives from research and practice*. London: Routledge. In press.
- Hamlin, R.G. (2006b). Behavioural indicators of managerial and leadership effectiveness at the executive leader level of management within a UK private sector telecommunications company. Paper (16-2) presented at the UFHRD/AHRD Seventh international conference on HRD research and practice across Europe, Tilburg, Netherlands, May.
- Hamlin, R.G., & Bassi, N. (2006). Behavioral indicators of manager and managerial leader effectiveness: an example of HRD professional partnership research from the UK private sector. In F.M.Nafukho and H-C. Chen (Eds.), 2006 Academy of human resource development proceedings (pp. 21-3). Bowling Green: OH, Academy of Human Resource Development.
- Hamlin, R.G., & Cooper, D.J. (2005). HRD professional partnerships for integrating research and practice: a case study example from the British National Health Service. In M.L.Morries and F.M.Nafukho (Eds.), 2005 Academy of human resource development proceedings (pp. 43-1). Bowling Green: OH, Academy of Human Resource Development.
- Hamlin, R.G., & Stewart, J. (1998). In support of evidence-based human resource development practice. Lancaster-Leeds Collaborative Conference: Emergent fields in management-connecting learning and critique, Leeds, July.
- Holton, E.F. (2004). Implementing evidence-based practice: Time for a national movement? *Human Resource Development Review*, 3(3), 187-188.
- Jacobs, R. L. (1997). HRD professional partnerships for integrating HRD research and practice, In R. Swanson & E. Holton III (Eds.) *Human resource development research handbook: Linking research and practice* (pp.47-61) San Francisco: Berrett-Koehler.

- Johnson, P., & Duberley, J. (2003). Reflexivity in management research. *Journal of Occupational and Organizational Psychology*, 74, 125-143.
- McGoldrick, J., Stewart, J.D., & Watson, S. (2002) *Understanding human resource development: A research-based approach*. London: Sage.
- MacLean, D, MacIntosh, R., & Grant, S. (2002). Mode 2 management research. *British Journal of Management*, 13, 189-207.
- Mintzberg, H. (2004). *Managers not MBAs: A hard look at the soft practice of managing and management development*. San Francisco: Berrett-Koehler Publishers.
- Nowotny, H., Scott, P., & Gibbons, M. (2001). *Re-thinking science: Knowledge and the public in the age of Uncertainty*. Oxford: Polity Press.
- Pawson, R. (2002). Evidence and policy and naming and shaming. *Policy Studies*, 23(3/4), 213-230.
- Pelz, D.S. (1978). Some expanded perspectives on the use of social science in public policy. In M. Yinger and S.J. Cutler (Eds.), *Major social issue: A multidisciplinary view* (pp. 346-57). New York: Free Press.
- Russ-Eft, D., Preskill, H., & Sleezer, C. (1997). *Human Resource Development Review: Research and Implications*. Thousand Oaks, CA: Sage.
- Rynes, S.L., Bartunek, J.M. & Daft, R.L. (2001). Across the great divide: Creation and transfer between practitioners and academics. *Academy of Management Journal*, 44, 340-355.
- Short, D. (2006). The gap between research and practice in HRD: A summary of the discussion 1995-2005. In F.M.Nafukho and H-C. Chen (Eds.), 2006 Academy of human resource development proceedings (pp. 12-1). Bowling Green: OH, Academy of Human Resource Development.
- Starkey, K., & Madan, P. (2001). Bridging the relevance gap: Aligning stakeholders in the future of management research. *British Journal of Management*, 12 (Special Issue), S3-S26.
- Starkey, K., and Tempest, S. (2004). Researching our way to economic decline. In N. Adler, A.B.(Rami) Shani & Styhre (Eds.), *Collaborative research in organizations: Foundations for learning, change and theoretical development* (pp 23-36). London: Sage.
- Storberg-Walker, J. (2006). From imagination to application: Making the case for the general method to theory-building research in applied disciplines. *Human Resource Development International*, 9(2), 227-59.
- Stewart, R. (1998). More art than science? *Health Service Journal*, 26 March, 28-29.
- Swanson R. A. (1997). HRD research: Don't go to work without it ! In R. Swanson & E. Holton III (Eds.), *Human resource development research handbook: Linking research and practice* (pp.21-46). San Francisco: Berrett-Koehler.
- Torraco. R.J. (2004). Challenges and choices for theoretical research in human resource development, *Human Resource Development Quarterly*, 15(2), 171-178.
- Tranfield, D., & Starkey, K. (1998). The nature, social organization and promotion of management research towards policy. *British Journal of Management*, 9(4), 341-353.
- van Aken, J. (2004). Management research based on the paradigm of the design sciences: The quest for field-tested and grounded technological rules. *Journal of Management Science*, 41(2), 219-246.
- van Aken, J. (2005). Management research as a design science: Articulating the research products of Mode 2 knowledge production in management. *British Journal of Management*, 16, 19-36.
- Worrall, L. (2005). Fiat lux: A reflection on management research. *International Journal of Management Concepts and Philosophy*, 1(3), 248-261.
- Woodall, J., & Winstanley, D. (1998). *Management development: Strategy and practice*. Oxford: Blackwell.