A MODEL FOR RESEARCH SUPERVISION

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ABSTRACT
This article presents a model for research supervision. Research supervision is conceptualised as a goal-directed interpersonal engagement between a supervisor and post-graduate learner, which is by nature facilitative of the development of the post-graduate learner as a scientist and scholar. The model presents facilitative elements (those qualities which are advocated as favourable to advance and succour the research supervision process) and stumbling blocks (those impeding factors which obstruct and preclude the development of the post-graduate learner as a scientist). Facilitative elements include issues such as goal-orientation, knowledgeability, learner-orientation, openness, flexibility, trust, positive regard and containment. Stumbling blocks include issues such as stereotyping, controlling, paternalism, distancing, indifference and avoidance. The process of the model for research supervision is described in order to illustrate the way in which the supervisor and post-graduate learner utilise facilitative elements in the mobilisation of resources which promote the learner’s development as a scientist. The role of stumbling blocks and how they affect the process of research supervision is presented. The position and characteristics of the post-graduate learner as a novice scientist are presented along a continuum of scientific development.

INTRODUCTION
The model for research supervision focuses exclusively on the interpersonal nature of research supervision. It has been derived from a psychiatric nursing model of therapeutic interaction described by Müller (1993), as per the process of theory derivation described by Walker and Avant (1988:63,119-126). In this theory derivation, explanations or predictions from the analogous theory of therapeutic interaction are used to explain the interactional process of research supervision. This offers new insights and allows transposition and redefinition, without simply “borrowing”, in unchanged fashion, from another field.

The model is at the practice theory level of theory development. The usefulness of this level is that the model can be empirically tested in practice in a direct manner (Müller, 1993:100; Walker & Avant, 1988:12-13). The relational statements and concepts formulated in the derivation of this model may be subjected to a process of ongoing research to make pronouncements about their validity and applicability. Testable hypotheses may be formulated and empirically researched for acceptance, modification or rejection.

CONCEPTUAL DEFINITION OF RESEARCH SUPERVISION
Research supervision is conceptualised as a goal-directed, interpersonal engagement between a research supervisor and post-graduate learner which is by nature facilitative of the learner’s development as a scientist. The supervisor and learner utilise facilitative elements in the mobilisation of resources, which promote the learner’s development as a scientist.

The facilitative nature of research supervision implies that
facilitation skillfully assists, advances and encourages the process of scientific development. The engagement entered into implies an accountable undertaking by the supervisor and learner to step into a mutually agreed upon process in a here-and-now context. The rights and responsibilities of both the supervisor and the learner are accepted. Inherent to this engagement is the supervisor’s empathic willingness to meet with the learner in the frame of reference of the learner’s relative position on the scientific development continuum.

**POSITION OF THE LEARNER ON THE SCIENTIFIC DEVELOPMENT CONTINUUM**

**FIG 1: POSITION ON SCIENTIFIC DEVELOPMENT CONTINUUM**

The relative position of the learner may be determined on the continuum of scientific development. The learner who is at the undergraduate degree level may be situated at the relative position characterised as “minimum development” in figure 1. The learner who is at the post-graduate Master’s degree level may be situated in the range of the position characterised as “intermediate development” in figure 1. The learner at doctoral level may be situated more towards the range of “maximum development” in figure 1.

**THE MODEL FOR RESEARCH SUPERVISION**

The model for research supervision will be discussed as illustrated in figure 2:

**FIG 2: A MODEL FOR RESEARCH SUPERVISION**

The post-graduate learner and supervisor engage in an interpersonal process, which is research supervision (represented by the overlapping area of the two circles in figure 2). The goal of the research supervision process is to facilitate the learner’s development as a scientist. The supervisor and learner each bring specific attributes to this interaction which influence the process. These attributes may be favourable to advance and succour the process (and are then referred to as facilitative elements), or they may obstruct and impede the process (and are then referred to as stumbling blocks).

A description of the facilitative elements and stumbling blocks will be given before pursuing the description of the process further.

**Facilitative elements**

A new description of a set of concepts, derived from the therapeutic interaction model, is described for the research supervision model. This means that the meanings of concepts in the therapeutic interaction model are developed and changed to fit the research supervision process; they are derived and not applied in unchanged form (Walker & Avant, 1988:63).


**Goal-orientation**

The goal of research supervision between a supervisor and post-graduate learner is ultimately the facilitation of the learner’s development as a scientist. Research supervision is consequently purposive, and mutually agreed upon goals between supervisor and learner are the underpinning of this development of the research supervision process.

**Knowledgeability**

It is critical to the research supervision process that the supervisor have both intellectual knowledge (being well-informed and professionally educated in the discipline and in research) and personal knowledge (self-awareness of internal world dynamics) to facilitate the learner’s development as a scientist. The learner brings a variable level of knowledge relative to his/her position on the scientific development continuum.

**Learner-orientation**

This element is expressive of supervision which is primarily directed at the interests of the candidate’s learning needs, as opposed to the needs of the supervisor.

**Openness**

Self-disclosure on the part of the learner is related to the supervisor’s openness, since the supervisor’s willingness to interact in an honest way is also an essential condition for trust in the supervision process. Openness is closely related to genuineness and authenticity on the part of the supervisor.

**Flexibility**

A supervisor who is flexible is able to develop a philosophy that guides conduct. The flexible supervisor has philosophical convictions that are personally satisfactory and that can be used as a source of strength and self-renewal. The supervisor contributes these internal world assets to the research supervision process.
Communication skills
This element refers to the particular communication skills and interactional styles that the supervisor and learner utilise in interaction. Effective interaction helps create a relationship which the learner may experience as safe, consistent and trustworthy. These skills include listening skills, responding skills and self-awareness.

Trust/confidence
These synonymous terms imply reliance on, belief in and the certain conviction that there is safety and personal protection in the research supervision process.

Containment
Containment is expressive of the learner's sense of being intellectually and emotionally "held" in the research supervision process by a supervisor who is intellectually and emotionally capable of "holding" the learner.

Autonomy
Autonomy is closely related to self-determination and freedom of action. It refers to the condition of self-government of learners, in which the supervisor grants them the independence or latitude to exert their personal volition in responsible research planning and decision-making.

Freedom of action
This element refers to the right of learners to feel free from constraints, coercion or undue influence to participate in a too-rigidly enforced set of research rules and regulations. Any research practice that directly or coercively deprives a learner of freedom of responsible action has at least ethical implications for the supervisor.

Conscious awareness/owning thoughts and feelings
This process whereby learners have an awareness of their internal psychological processes (thinking, reasoning and feeling) implies that learners have access to their internal worlds in such a way that it enhances their development as scientists. The supervisor facilitates conscious awareness and owning of thoughts and feelings in dealing with research issues such as biases, immersion in subjective data and ethical judgements.

Transference
Transference consists of the displacement of feelings, attitudes and impulses experienced towards previous authority figures in a learner's life onto the research supervisor, to whom they do not realistically apply. Transference always participates in the research supervision process and must be "worked with" by supervisor and candidate. The inherent interdependence is critical to forming the interpersonal relationship, in that it facilitates the learner-supervisor attachment which is a critical factor in the research supervision process.

Intimacy
Intimacy in the context of the research supervision process emphasises the reciprocal positive affects of commitment and concern which allow both supervisor and learner to be congruent in all their interaction.

Positive regard
This element encapsulates several aspects, such as congruence of thoughts, feelings and behaviour, acceptance, mutual respect and caring, warmth, empathy and an appreciation of the uniqueness of each person.

Congruence, also called “genuineness”, refers to the supervisor's ability to be aware of the way in which he/she experiences interaction with the post-graduate learner, as well as the supervisor's ability to communicate this to the learner.

Warmth is a condition of friendliness and consideration manifested by non-verbal attending behaviour (such as eye contact), which usually accompanies empathic efforts.

Acceptance and positive regard are often used synonymously, and refer to the supervisor's ability to avoid making biased judgements of the post-graduate learner, whether positive or negative, overt or covert.

Respect is usually shown through subtle nuances in verbal and non-verbal behaviour. It is a point of view which says "You count. You have worth. You matter. You have dignity, and I will treat you in a respectful, polite manner."

The uniqueness of persons is a philosophical construct in which an individual cannot be equated with any other person. Acceptance of uniqueness expresses respect for the individuality and worth of a person.

Stumbling blocks
The description of stumbling blocks in the psychiatric nursing model from which this model for research supervision was derived, is based on the empirical findings which emerged from the original fieldwork. These findings were subject to a literature review of Goffman (1961), Goffman (1963), Goffman (1971), Van Reenen, De Villiers and Uys (1992), Wilson and Kriesl (1988), Johnson (1989), Billingmeier (1990), Szasz (1961), Menzies (1970), Berne (1964), Taylor (1990), Perko and Keigh (1988), Haber et al. (1987), Motsepe (1992), Peplau (1952), Freud (1986 [Orig. 1917]), and Freud (1987 [Orig. 1915]).

Stereotyping
Stereotypical practices are rigid from day to day and person to person, and occur when supervisors do not think about differences or circumstances into account. Stereotyping refers to whole blocks of post-graduate learners as a means of social organisation and management of learners en masse rather than as individuals. When learners are perceived as possessing different and less desirable attributes than the supervisor, variations of discrimination are exercised which involve treating post-graduate learners, whether by intent or not, in inequitable or injurious ways on the basis of such distinctions.

Controlling
An austere world is laid out for the post-graduate learner when a relatively explicit and formal set of prescriptions lay out the main requirements of learner conduct. Controlling modalities are dehumanising and do not justify even desirable ends. This is clearly the situation when the supervisor takes the role of an authoritarian, manipulative figure, whereas the post-graduate learner is reduced to the role of the recipient of instructions. Mature democratic behaviour is all too frequently a new pattern to be learned by supervisors. Rigid controlling of post-graduate learners diminishes privacy and self-control, decreases individuality and autonomy and interferes with decision-making. A margin of self-expressive behaviour is one symbol of self-determination and autonomy which should not be weakened by a controlling supervisor.

Paternalism
This is a form of social control over the post-graduate learner, and gives the supervisor a special basis of distance from and control over the learner. It often requires the supervisor to
make research decisions for the learners, and does not encourage them to be accountable for their own research decisions. In this event, the net effect is the persistent infantilisation and domination of the post-graduate learner. The learner has the incontrovertible right to the best research supervision that can be offered; whilst such rights have long been acknowledged by supervisors, sensitivity to them and persistence in their application has been lacking.

**Distancing**

The very anticipation of sustained and intensive interpersonal contact between supervisor and postgraduate learner can lead to an arrangement in which each creates distance from the other. This has more negative consequences for the post-graduate learners than for the supervisors. Two different worlds develop, juggling alongside each other with points of official contact but little mutual penetration. Supervision interactions may take the form of relating problems, minor requests and other superficial interactions. Supervisors may become disillusioned and retire into committees, administration and other staff-enclosed routines as a method of creating distance. This fosters passivity in both the supervisor and post-graduate learner.

**Indifference**

Indifference and impersonality reinforce the post-graduate learners’ sense of unimportance and further convince them of what they may already suspect – that they are lacking in value as people. Indifference renders the supervisor unable to perceive the learners’ frame of reference accurately or to appreciate what the learners strive towards and what they need in order to grow, change and develop. It also renders the supervisor unable to communicate this to the post-graduate learner. The very reason why many supervisors and learners do not work equally effectively in the supervision process is that their own personalities are the major tools available for the interaction.

**Denial**

In denial, the existence of unpleasant realities is disavowed. The supervisor and post-graduate learner may elicit in each other feelings that are hard to admit. Denial of these feelings by either party places a strain on the supervision relationship and affects trust, genuineness and honesty. Denial may operate when security is threatened, and requires paying strict attention to getting approval and avoiding disapproval. The learners’ social role provides a way of life which enables them to deny the devastating psychological effects of internalising and converting social criticisms of minor failings or mistakes into self-criticism.

**Avoidance**

In avoidance, unpleasant realities may be turned away, or kept at a distance by various forms of resistance. Postgraduate learners extricate themselves from responsibility for their scientific development by declaring that nothing new occurs to them, or that they have forgotten prior knowledge, or that they cannot get hold of the thoughts they had. The post-graduate learners’ avoidance defensively brings them into appropriate alignment with the basic values of the learning society, and so may be called an apologia. If the post-graduate learners can manage to present a view of their current situation, which shows the operation of favourable personal qualities in the past (as learners) and a favourable destiny awaiting them (as scientists), they may be called a success story.

**Anxiety**

The type of anxiety involved is that evoked in the face of a threatening external danger (realistic anxiety about doing research) as opposed to “neurotic” anxiety (free-floating apprehension which attaches itself to any idea that is in any way suitable). In what supervision situations anxiety will appear depends to a large extent on the post-graduate learners’ knowledge or their sense of power vis-à-vis the research task on which they have embarked. Realistic anxiety may be viewed as self-preservative, but high levels greatly increase the psychological effect of a violation of the self’s boundaries. Anxiety is also increased in the supervision process when there is a perceived threat to personal prestige and feelings of worth, dignity and self-respect. It is doubtful that anxiety can be alleviated without the supervisor and post-graduate learner knowing what will result in the emergence of acute psychological stress.

**The process of the model**

The research supervisor and post-graduate learner meet to engage in an interpersonal process, which is that of research supervision. Facilitative elements are utilised by both parties to strive towards the goal of facilitating the scientific development of the post-graduate learner. The use of the entire spectrum of facilitative elements increases the efficacy of the research supervision process (see the large overlap between the first two circles in figure 3). The lack of one or more of the facilitative elements will result in a less efficacious research supervision process (see the diminished overlap between the middle set of circles of figure 3). When none of the facilitative elements are utilised, then a research supervision process as defined in this model does not exist between supervisor and postgraduate learner (see absence of overlap between the last set of circles in figure 3).

![FIG 3: FACILITATIVE ELEMENTS IN RESEARCH SUPERVISION](image)

There are stumbling blocks which adversely affect and preclude the development of effective research supervision. When the supervisor-learner relationship is characterised by the presence of stumbling blocks, no effective research supervision can exist, and the distance between the supervisor and post-graduate learner is increased by their presence (see figure 4).

It is not in the lack of facilitative elements that distance is increased, but rather in the presence of stumbling blocks (compare figure 3 and figure 4). The reason for this is the mutual exclusivity of the facilitative elements and the stumbling blocks. They are entirely contrary to one another,
FIG 4: STUMBLING BLOCKS IN RESEARCH SUPERVISION

- Presence of some stumbling blocks
- Increased presence of stumbling blocks

and so cannot co-exist in the sense of their meanings as discussed above. It is only in the absence of BOTH facilitative elements and stumbling blocks that a condition of "neutrality" exists between supervisor and post-graduate learner. In such a "neutral" position the supervisor and learner co-exist on the peripheries of one another's lives without active interpersonal engagement (use of facilitative elements) or overt negativity (as in the presence of stumbling blocks).

CONCLUSION

The chief end of research supervision is to facilitate the scientific development of the post-graduate learner. In the context of the supervision relationship, this goal cannot be realised if the development of the supervision interaction is adversely affected by a lack of utilisation of facilitative elements and/or the presence of stumbling blocks. The realisation of this goal is therefore critically dependent on a supervision interaction in which facilitative elements are maximally utilised by the research supervisor and post-graduate learner. If only some of the facilitative elements are utilised, progress towards the end goal is slower, and it may not be fully realised at all. In the event of a supervision interaction which does not develop, is adversely affected, or which breaks down, the facilitation of the scientific development of the learner within the context of the supervisor-learner relationship cannot occur.

With acknowledgement to Professor Marie Poggemool for her kind assistance and guidance in presenting this model.

REFERENCES