



# Supervising research students in primary health care using a leadership model



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Many strategies have been outlined to address worldwide concerns about developing and maintaining research programs.<sup>1-3</sup> Two of the personal components that underpin the sustainability of a researcher cohort are effective training and research supervision for new researchers. The success of an ongoing relationship between these two parties may be measured by outcomes, usually a series of discrete products such as publications or degrees conferred. These outcomes are designed to contribute more to a body of scientific knowledge or a higher degree pool, rather than to an understanding of the process involved and whether a competent research student has evolved from the process.

Under the Primary Health Care Research and Development (PHCRED) program, it has been recognised that the learning that takes place in supervisor-student relationships will be a major contributor to maintaining a critical mass of primary health care researchers in Australia.<sup>4</sup>

This article describes one methodology used in the PHCRED program to assist research supervisors develop skills in research students. The situational leadership (SLII) model outlines a process where leadership styles of research supervisors are matched to learning stages of research students. It is a flexible and dynamic process that can be applied to a variety of settings.<sup>5</sup>

## The model

The SLII was first described by Blanchard in 1985 and is used widely in management circles.<sup>6-8</sup> However, this is the first time SLII has been applied to primary health care research

development. This model of leadership was chosen due to its structure of change over time. This format has some synergy to the primary health care setting. The SLII is based on research that identifies the distinct stages learners pass through on the way to learning new tasks. Identifying the development stage of a learner and using the appropriate leadership style to assist the learner are the two key features of the model.<sup>9</sup> The third feature is communicating this partnership between the leader and the learner.

## Matching research student development stages and supervisor leadership styles

In the SLII model, a learner goes through four development stages (D) in the process of mastering a new task (*Figure 1*). They are:

- D1 = enthusiastic beginner
- D2 = disenchanted learner
- D3 = capable but cautious performer, and
- D4 = self reliant achiever.

In each of these stages, the two main factors that affect the development level of the learner are: competence – which encompasses their level of knowledge and skill, and commitment – which encompasses their degree of confidence and motivation. Competence and commitment fluctuate throughout the process.

The 'enthusiastic beginner' displays the characteristics of high commitment and low competence. The learner is ready and willing to perform the task, but has limited understanding of how to do it.

The 'disenchanted learner' displays the characteristics of low commitment and low to some competence. As knowledge and skill

increase, the learner may find out just how much they don't know. The learner not only has limited skills, but has probably also had a few setbacks and lost some of the motivation and confidence necessary to achieve task mastery.

The 'capable but cautious performer' displays the characteristics of variable commitment and moderate to high competence. Setbacks at this time for the learner will effect their confidence, although they have most of the knowledge and skills to complete the task.

The 'self reliant achiever' displays the characteristics of high commitment and high competence. The learner has the necessary competence and commitment for task accomplishment. In the SLII model, a leader displays four leadership styles (S). They are:

- S1 = directing
- S2 = coaching
- S3 = supporting, and
- S4 = delegating.

In each of these styles the two main factors that determine the leadership style of a leader are the level of direction given to the learner (directive leadership) and the level of support given to the learner (supportive leadership).

Directive leadership is task focussed. It is when a supervisor provides structure, organises the task, explains how to do the task, and supervises the conduct of the task. Supportive leadership is relationship focussed. It is when a supervisor provides encouragement and praise, listens and empathises, facilitates discussion, and gives perspective.

The four leadership styles (S1, S2, S3, S4) correspond to the four development levels (D1, D2, D3, D4) of the learner. The matching

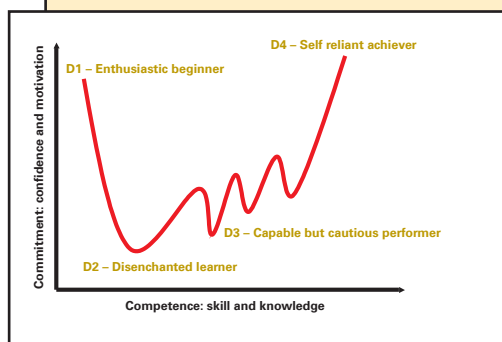


Figure 1. Development stages

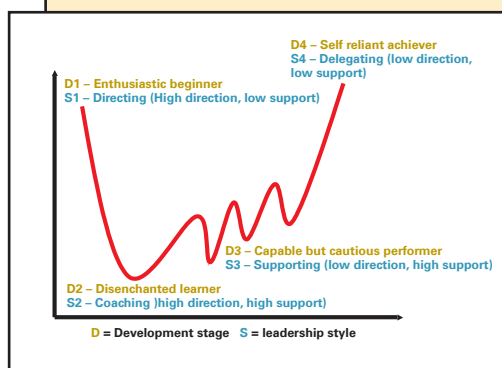


Figure 2. Matching leadership styles with development stages

of developmental stages to leadership styles is shown in *Figure 2*.

## The model in PHCRED practice

Effective leadership occurs when an appropriate leadership style is matched to the development stage of the student. Examples follow for matching supervisor instructions to the research student's development stage, as they are used in the PHCRED program at the University of Sydney (New South Wales) by staff accredited as trainers.

When a research student commences a research task they are usually enthusiastic, full of confidence and motivation. They are 'unconsciously incompetent' – they don't know what they don't know. Supervisors at this stage need to be directive not supportive. In fact, a lot of direction provided by the supervisor will be viewed as supportive, because it is direction that the research student needs to feel supported in their learning process at the outset. When directing, supervisors:

- set clear goals

- identify standards
- deliver 'hands-on' training
- provide frequent feedback, and
- recognise enthusiasm.

The language of directive leadership is very specific. Sentences are to the point, focussing on what the learner should do. For example: 'Today I am going to tell you how to develop research questions from your ideas'. As the 'enthusiastic beginner's' motivation is high, there is little need for reinforcing statements. The 'I will decide for you' type of statement is used by the supervisor. For example: 'Here is a timetable to meet and develop the proposal'. As their knowledge and skills increase, the new researcher becomes 'consciously incompetent' and may struggle with the enormity of the research task as they discover just how much they need to master. They not only have limited skills, but may also have a few setbacks. An injection of motivation and confidence are often necessary. This leadership style is the most time consuming, and deals with the 'disenchanted research student' who may be ready to give up. The supervisor 'coaches' the student to increase all four components: skill, knowledge, confidence and motivation. When coaching, supervisors provide:

- perspective and explanations of why
- frequent feedback on results
- assurance that it is okay to make mistakes
- involvement in decision making, and
- encouragement and praise for making progress.

The language used is conversational. For example: 'Don't submit a grant which asks you to name prospective reviewers without contacting the reviewers first to see whether they are happy to be enlisted'. There is an emphasis on the partnership between the supervisor and student. However, the partnership relies on the leader maintaining the role of senior partner. 'We' and 'let us see' are used more often. For example: 'Should we write the response to reviewers together?'

When a learner has achieved a moderate to high degree of competence, their confidence and motivation may still be labile. At this stage the research learner is 'consciously

competent'. A supervisor will provide support, but not much direction. When supporting, supervisors provide:

- an approachable mentor or coach
- opportunities to express concerns
- support and encouragement to develop problem solving skills
- help in looking at skills objectively so confidence is built, and
- praise and recognition for good performance.

A supporting supervisor uses conversational language. However, the student is allowed to adopt the role of senior partner. For example: 'How would you extract an abstract from the proposal?' 'We' and 'let us see' are replaced with 'you decide' and 'you can do it', to signify this change. For example: 'You are right to be worried about recruitment. How do you think you can enhance it?'

When a research student has the necessary competence and commitment for task accomplishment they are 'unconsciously competent'. They have learnt how to perform research. They can also deal with new research problems if they arise. The delegating supervisor provides low support and direction. It is the least time consuming leadership style and is the desired outcome of research leadership training. When delegating, supervisors:

- ensure variety and challenge
- display trust
- act as a leader who is more a mentor and colleague than a 'boss'
- acknowledge contributions, and
- presage autonomy and authority.

Delegating language is less discursive. There is an emphasis on the student's autonomy, not the partnership. For example: 'You are clearly a good researcher, can you teach your colleagues about research?' 'You decide' and 'you can do it' are replaced with 'let me know if you need me'.

## Evaluation

Evaluation of a process that is designed to develop leadership skills has two components: a subjective assessment by the learners of the value of the model, and an assessment of the short term outcomes

achieved through use of the model. Long term evaluation is beyond the scope of this article and would be extremely difficult due to the range of confounding factors beyond the model that influence leadership.

The anecdotal feedback about situational leadership has been very positive from the presentations in a variety of general practice forums over the past year, including at the PHCRED National and New South Wales conferences. Several participants have subsequently relayed to us that they are using the model in their research settings. These comments led us to undertake a more formal assessment of the model.

A more formal process evaluation was carried out at a series of three leadership workshops for women rural general practitioners in New South Wales under the auspices of the Rural Doctors' Network. The situational leadership model was presented as a session in a 2 day workshop. Included in the workshop was an 'individual challenge exercise' in which participants had to prepare a leadership presentation using the principles of situational leadership. The challenge was designed to assess whether any leadership competency had been achieved through the workshop.

Ten GPs attended each workshop and 26 evaluations were received from the three workshops. The participants evaluated the situational leadership session as follows: not useful 0, useful 6, and very useful 17. The individual challenge exercise which provided an interim measure of evolving competency was rated: not useful 0, useful 5, and very useful 19. In the free text section of the evaluation, several comments were made about integrating the situational leadership model into individual practices, eg. 'the course has given me much greater insight into styles of leadership and provided a very useful framework'.

## Discussion

In this leadership model, the skills of an effective research supervisor include the ability to recognise the development stage of a research student, the flexibility to change leadership style according to the needs of the student, and the capacity to form an effective

relationship/partnership with the student. Progression to competent researchers may not be smooth, or always in the direction toward 'self reliant achievers'. Students experience problems along the way that can send them backward. Flexibility is therefore an essential skill in adopting situationally appropriate supervisory styles.

In Australia, most managers have a preference for one leadership style. Fifty-one percent of managers use only one leadership style comfortably, 30% use two styles comfortably, and 18% use three styles comfortably. Only 1% of the management population use all four styles comfortably.<sup>10</sup>

When applied to a research partnership, it remains to be seen whether this structured workshop results in a sustainable cohort of new researchers. In other settings, situational leadership workshops have produced sustainable change.<sup>11</sup> Our preliminary work suggests that an effective research supervisor – using this model – can identify the needs of the research student, match the appropriate leadership style, monitor the progression of the student in mastering a research task, and thereby improve short term outcomes such as effective partnerships.

Conflict of interest: none declared.

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