

CGPSC - Prelims

APTITUDE TEST

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An Institute for IAS/IPS, MPPSC

Satellite 1 makes a circular orbit around the Earth with a radius $r_1 = R$.
Satellite 2 makes a circular orbit around the Earth with a radius $r_2 = 2R$.
We let v represent the speed of a satellite and a represent the magnitude of a satellite's acceleration. Which
one of the following choices gives the correct relation between the speeds and accelerations of the satellites?

- (A) $v_2 = \frac{1}{2}v_1$; $a_2 = \frac{1}{4}a_1$
(B) $v_2 = \frac{1}{2}v_1$; $a_2 = \frac{1}{2}a_1$
(C) $v_2 = \frac{1}{\sqrt{2}}v_1$; $a_2 = \frac{1}{2}a_1$

- (D) $v_2 = \frac{1}{2}v_1$; $a_2 = \frac{1}{2}a_1$
(E) $v_2 = v_1$; $a_2 = \frac{1}{2}a_1$

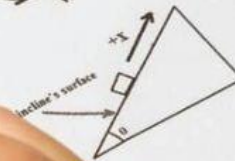
23. A car moves with constant speed around a horseshoe-shaped path as shown with
the arrows in the figure. Which one of the following choices best describes the
direction of the average acceleration of the car in traveling from W to X?

- (A)  (B)  (C)  (D)  (E) There is no average acceleration.



24. A mass on a frictionless incline has a gravitational force F_g acting vertically downward. A force F is applied to the mass parallel to the incline, and the mass remains at rest. Which one of the following choices best describes the orientation of the force F relative to the incline?

- (A) The applied force is perpendicular to the incline.
(B) The applied force is parallel to the incline.
(C) The applied force is perpendicular to the vertical axis.
(D) The applied force is parallel to the vertical axis.
(E) The applied force is perpendicular to the horizontal axis.



Which one of the following choices best describes the total force F acting on the mass?



Paper- 2 Aptitude Test

SUBJECT	PAGE.NO
<ol style="list-style-type: none">1. Interpersonal skills including communication skills;2. Logical reasoning and analytical ability3. Decision making and problem solving4. General mental ability5. Basic numeracy (numbers and their relations, orders of magnitude etc.) (Class X level), Data interpretation (charts, graphs, tables, data sufficiency etc. -Class X level)6. Knowledge of Hindi Language (ClassX level).7. Knowledge of Chhattisgarhi Language.	1-520

INTERPERSONAL SKILLS, COMMUNICATION SKILLS, DECISION MAKING AND PROBLEM

INTERPERSONAL SKILLS AND COMMUNICATION SKILLS

DEVELOPMENT OF INTERPERSONAL SKILLS

Today, in an era guided by technological absolutism, people tend to take their interpersonal skills for granted. Therefore, they fail to work effectively with superiors, colleagues, and subordinates. Moreover, with globalization and the prevailing economic scenario, the corporate sector has to operate in a rapidly changing, turbulent and highly competitive environment. Companies have to harness their employees' skills, knowledge and attitudes to ensure quality and quantity in every aspect of work. The scope of building in the knowledge of interpersonal skills in the General Studies by the UPSC, maybe because, they want to have administrators with the ability to think clearly, build networks, communicate more openly and develop interpersonal relationships. Scientists and engineers in all positions have to be able to communicate the purpose and relevance of their work, both orally and in writing. Teachers have to communicate with their students. Industry people must communicate with managers and co-workers (many of whom will not be scientists and engineers) and with customers. If you work in public policy or government, you might have to communicate with the press and other members of the public. You need to communicate with colleagues to keep up with trends, to collaborate on projects, and to find a new position. If communication is a social need for an individual, it is the lifeblood for an organization. Today it is not sufficient enough just to have the technical ability to do the job. We need to possess interpersonal skills to communicate, motivate, organize, counsel and negotiate.

Interpersonal Skills: An Introduction Interpersonal skills can be thought of as a tool chest of skills and options for successful life. As with any tool kit, a hammer is not always the right tool. Figure 1 represents an inventory of your Interpersonal Skills tool kit. It includes the interpersonal skills studies necessary for effective managerial performance. Although the inventory may omit some skills that are important, it represents our best selection of the essential interpersonal skills. Most "experts" believe effective managers have, and prospective managers should have, a complete interpersonal skills tool kit. These skills fall into the six broad areas of communicating, motivating, leading, teaming and problemsolving—summarized in Table 1.1 below. How Do You Learn these Skills? "I hear and I forget. I see and I remember. I do and I understand." This famous quote, attributed to Confucius, is used frequently to support the value of learning through experience. The saying has some truth to it, but contemporary research on learning suggests a more accurate rephrasing would be: "I understand best when I hear, see and do!" How does someone learn to read, ride a bike, type, or play the tabla? How did Sachin Tendulkar develop his batting skills or how did Om Puri learn to act? The answers to these questions are all the same—practice, practice, practice! People are

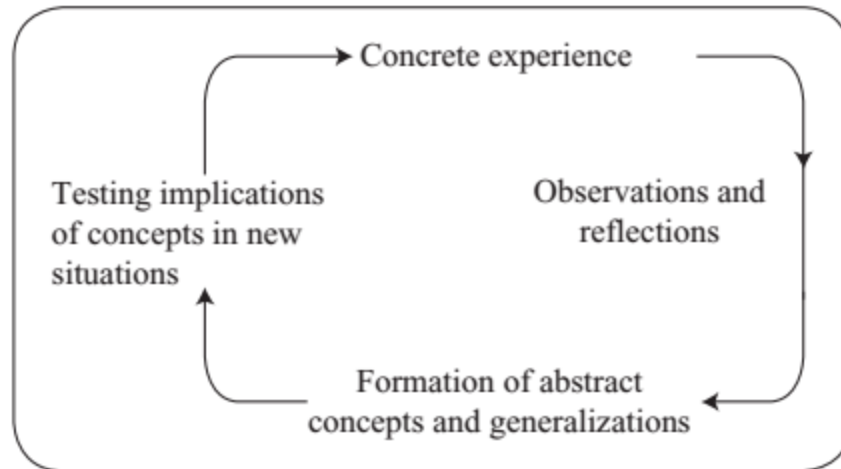


TABLE 1.1 Key Interpersonal Skills

SELF-AWARENESS	Self-Awareness, Self-Management, Intelligence	Self-Emotional	MOTIVATING	Goal Setting, Coaching, Counselling, and Mentoring	Empowering People
COMMUNICATING	Interpersonal Communication, Listening, Providing Feedback, Communicating Across Cultures		TEAMING	Working with Teams, Valuing Diversity	
LEADING	Politicking, Leading	Persuading, Managing, Change	PROBLEM SOLVING	Decision-making, Problem-solving, Resolving Conflicts, Negotiating	

not born able to fly planes, perform brain surgery, or fix a photocopying machine. They learn some basic techniques and then practice them over and over again until they perfect those techniques.

To become competent at any skill, a person needs to understand it both conceptually and behaviourally, have opportunities to practice it, get feedback on how well he or she is performing the skill and use the skill often enough so it becomes integrated into his or her behavioural repertoire. These learning dimensions are incorporated in David Kolb's model of experiential learning, presented in Figure 1.1.

This experiential learning model emphasizes that the development of behavioural skills comes from understanding, practice, observation of results and modifying behaviour. Comprehensive learning encompasses four elements:

- Active participation in a new experience (concrete experience).
- Examination of that experience (reflective observation).

- Integration of conclusions based on the new experience into workable theories (abstract conceptualization).
- Application of the theories to new situations (active experimentation).

Self-awareness

In order to improve interpersonal skills, candidates need to know as much as they can about themselves. The more students know about themselves, the better they will understand how they're perceived by others and why others respond to them the way they do. To the degree this examination indicates things students do not like about themselves or that are hindering their interpersonal effectiveness, they may want to change certain things about themselves. But nothing in this chapter is meant to suggest they need to change. Its contents are designed only to help students gain expanded insights into themselves. This provides students with insights into their values and assumptions about people, their interpersonal needs, their assertiveness levels and their interpersonal styles, or habits of relating to others.

Key Concepts

INCLUSION Has to do with forming new relations and associating with people, and determines the extent of contact and prominence a person seeks.

Expressed Inclusion: How much do I connect with others in activities of ideas? Wanted

Inclusion: How much do I want togetherness or to be part of a network?

CONTROL Has to do with decision-making, influence and persuasion among people, and determines the extent of power or dominance a person seeks.

Expressed Control: How much do I take charge, directly or indirectly?

Wanted Control: How much do I want others to be "in the driver's seat"?

AFFECTION Has to do with emotional ties and warm connections between people, and determines the extent of closeness a person seeks.

Expressed Affection: How much do I share myself with others? Wanted Affection: How much do I want others to reach out to me?

Five Fundamental Personality Characteristics

Adjustment—Rates a person's overall emotional stability. People with high adjustment scores are generally calm and stable, even in turbulent situations.

Extroversion—Rates the extent to which a person gains energy from being around other people, as opposed to introverts, who gain energy by withdrawing inside themselves.

Agreeableness—Rates the extent to which a person is willing to accommodate the requests of others - how cooperative they are likely to be.

Conscientiousness—Rates the extent to which a person can be depended upon to complete work commitments.

Openness to experience—Rates the extent to which a person likes being exposed to new things.

Self-management

Goals give us the power to transform our behaviour. Without goals, achievements are difficult, if not impossible. When goals are based on fundamental values, our achievements have meaning. Managers need to be able to set effective goals, and create plans to achieve them. It gives students the tools they need to plan for future development by first exploring their underlying values. Those values are then used as a foundation for developing goals, mission statements, and personal plans.

Key Behavioural Dimensions

1. Clarifying your values
2. Developing a personal mission statement
3. Developing a vision
4. Assessing personal strengths and weaknesses
5. Analysing environmental threats and opportunities
6. Setting operational objectives
7. Developing strategies
8. Implementing plans and strategies
9. Evaluating progress and making changes when necessary

Key Concepts

STRATEGIC PLANNING Goal setting is at the heart of the strategic planning process. Like individuals, the most effective organizations have mission statements that reflect organizational values, short-term and long-range goals based on those mission statements, and plans to make sure that the goals are achieved.

DECISION-MAKING Setting effective goals involve prioritization, a key element in the decision-making process. Some discussion of the perceptual problems that influence decisionmaking may be appropriate here.

EMPLOYEE PARTICIPATION Employees who participate in the goal-setting process will be more committed to achieving their goals, and therefore, more likely to have higher performance.

MOTIVATION One of the key elements of intrinsic motivation is the ability to control your work—a perception that is increased when employees set their own goals or participate in the setting of their goals. In addition, many process theories of motivation, such as expectancy theory, are predicated on establishing and rewarding goal-directed behaviour. The achievement of goals can reward, and therefore motivate, behaviour.

LEARNING/REINFORCEMENT Goals enable people to learn, by challenging them to achieve higher performance. Goal accomplishments that are rewarded reinforce behaviour.

Applying Emotional Intelligence

Whereas undergraduate students may not have been previously exposed to the concept of Emotional Intelligence (EI) as academic subject matter, most students, undergraduate and

graduate alike, have a deep appreciation for the construct and its application in everyday life. To be skilled in the competencies of self-awareness, self-management, social awareness and relationship management is, in other words, to understand and to be understood. These are powerful tools in the workplace for administrators and employees. EI is like a lubricant to relationships—it facilitates communication channels, clears the path of emotional noise and eases our ability to understand and to be understood.

Key Behavioural Dimensions

1. Being aware of your feelings and acting congruently
2. Sharing your feelings in a straightforward and composed manner
3. Treating others with compassion, sensitivity and kindness
4. Assessing potential reactions of others before acting and altering your actions based on assessments
5. Being open to the opinions and ideas of others
6. Building and mending relationships
7. Doing what it takes to bring about necessary changes
8. Decisively confronting problem people
9. Maintaining a balance between personal life and work

Key Concepts

PERCEPTION Our perception of an event or issue is based upon our inner interpretive process and underlies how we think, feel and react to the event. Perception is unique to a person because our individual interpretative process is based on our unique personality and history of experiences, feelings. Ask your students to discuss how Emotional Intelligence can influence how we interpret (and perceive) events and issues.

LEADERSHIP Emotional Intelligence not only contributes to the success of a leader, but just as important, assists a leader in the identification of an appropriate leadership style to apply to a situation. Additionally, a leader who treats others with compassion and kindness, and is sensitive to the feelings and needs of followers, is more likely to gain the respect of followers, thereby, increasing the leader's chance for goal achievement.

COMMUNICATION Emotional Intelligence improves one's ability to encode and decode messages, thereby increasing the chance of clarity (a goal of the communication process). Those with higher Emotional Intelligence are more likely to be straightforward in the communication of feelings.

GROUP DYNAMICS As a group member, group leader or manager responsible for the outcomes of a group, how can high Emotional Intelligence impact your success? EI helps you to build credibility with group members, to read the climate of the group's environment and to diagnose weaknesses related to interpersonal dynamics.

MANAGING CHANGE Administrators acting as change agents are responsible for building support for proposed changes in company structure, programs, etc. Because it is human nature

for most employees to resist change, being able to put people at ease and to assess potential reactions from others increases a manager's ability to navigate through this process. EI becomes a powerful tool in the change agent's toolbox to use in the campaign to build support for a change effort.

POWER Power implies an influence relationship and requires an awareness of self and others. Power originates in both characteristics and position. How can EI enhance your ability to acquire increased power? EI is associated with the development of a few of the personal power bases such as charisma, association, favorable impression and politicking skills.

POLITICS How you use politicking skills to your benefit— attempting to influence the distribution of outcomes and advantages—calls upon all your people skills. Those with higher EI are greatly advantaged by a keen awareness of their own feelings and those of others, as well as their ability to assess how others will react to specific circumstances. When the goal is to gain influence with others, interpersonal skills win the day.

CONFLICT Low EI, and poor “feelings radar” associated with it, lessen our ability to see straight to the heart of a conflict. Conflict resolution requires openness to the opinions and feelings of others and involves the building and mending of relationships. Emotional Intelligence increases our ability to approach a conflict situation decisively.

Interpersonal Communication

Communication is the basis for all human interactions and interpersonal relationships cannot exist without it. It is through communication that members in relationships interact to exchange information and transmit meaning. All cooperative action is contingent upon effective communication. Administrators and subordinates, team members and friends, are all dependent on communication to understand each other, build trust, coordinate their actions, plan strategies for a goal accomplishment, agree upon a division of labour and conduct group activities. Effective communication requires considerable skill in both sending and receiving information. A good administrator should learn how to send effective messages through increasing their clarity, developing credibility and soliciting feedback.

Key Behavioural Dimensions

1. Providing all relevant information
2. Being honest
3. Using multiple channels
4. Being complete and specific
5. Using I statements to claim your message as your own
6. Sending congruent verbal and nonverbal messages
7. Using language the receiver can understand
8. Maintaining credibility by knowing what you are talking about and being reliable
9. Communicating in a dynamic way that is warm and friendly
10. Obtaining feedback to ensure you have been accurately understood

Key Concepts

PERFORMANCE APPRAISAL Any form of communication to people that provides them with information about some aspect of their behaviour and its effect on their goals and those of the organization. In sending this type of message, you want to make sure it is received as intended.

MOTIVATION The effective oral persuader recognizes individuals differ in terms of their goals, needs, interests, fears and aspirations. When a person listens and determines these needs and then communicates effectively to the listener, he or she increases the motivational properties inherent in the message.

LISTENING Without listening there can be no communication, no matter how skilled the sender. Listening is necessary for the second half of the communication process: making sure the message was interpreted as intended.

VERBAL AND NON-VERBAL COMMUNICATION Effective communication involves more than the literal spoken words. People communicate through non-verbal signals as well as verbal. Eye contact, hand gestures, head nods and appropriate facial expressions are all important components of sending messages.

GOAL SETTING By sending effective messages to others you can clarify and encourage them to strive for relevant goals. You can't expect people to work toward your desired ends if they do not know what they are.

Listening and Reading Non-verbal Messages

Many interpersonal skills are not applied effectively because listening skills are ignored, forgotten, or just taken for granted. While it's something we've done all our lives, paradoxically, few of us do it well. Often, listening is confused with hearing, i.e., merely picking up sound vibrations. Listening is making sense out of what we hear. It requires paying attention, differentiating sound stimuli and interpreting the sender's intended meaning. As we attempt to show here, listening is a skill that can be learned and improved with practice.

Listening is also a vital ingredient for learning the remaining skills. An administrator will need effective listening skills to effectively carry out his or her function. Another reason to emphasize listening is that if administrators aren't effective listeners, they're going to have consistent trouble developing all of the other interpersonal skills. Also, it is important to know the significance of reading non-verbal messages. As cultures have different languages, they also send different messages through non-verbal behaviour, and it is as important to understand these non-verbal messages as it is to understand the language.

Key Behavioural Dimensions

1. Makes eye contact
2. Exhibits affirmative head nods and appropriate facial expressions
3. Avoids distracting actions or gestures that suggest boredom

4. Asks appropriate questions
5. Paraphrases using his or her own words
6. Avoids interrupting the speaker
7. Doesn't over talk
8. Deciphers non-verbal messages

Key Concepts

THE COMMUNICATION PROCESS Without listening, there can be no communication regardless of the sender's skill. Listening is necessary for the second half of the communication process. Decoding a message and feedback are two critical steps in the communication process. Effective listening is critical to both. Decoding is the translation of a message into a form that can be understood by the receiver. Verbal messages must be interpreted and effective listening skills facilitate that interpretation. Similarly, asking questions and paraphrasing— two listening behaviours—provide feedback and improve communication.

VERBAL AND NON-VERBAL COMMUNICATION Active listening requires more than paying attention only to the literal words spoken. People communicate through non-verbal signals as well as verbal. To gain a full understanding of a sender's message, active listening skills—taking in the whole picture— should be used.

BARRIERS TO EFFECTIVE COMMUNICATION Perhaps the most frequent barrier to effective communication is poor listening. Many times receivers of information are distracted, start to formulate a reply, or misinterpret the meaning of the senders' intent. Two other frequently cited roadblocks to effective communication are selective perception and semantic problems. Active listening can act as a means to overcome these barriers.

HEARING VERSUS LISTENING Even students familiar with the topic of listening frequently don't see the distinction between hearing and listening. An effective analogy is the dichotomy between reading and comprehension. Students often say they've "studied" something, but on careful examination you find out that means they've read the material. But do they understand what they've read? Often not! Comprehension is to reading what listening is to hearing. When students say they are listening, often they only mean they have heard someone speaking.

Providing Feedback

Feedback is any communication to a person that gives him or her information about some aspect of his or her behaviour and its effect on you. Although we generally relate to the word "feedback" as "performance feedback", the skill techniques needed to be learned is for most types of interpersonal feedback. When you tell someone sitting at an adjacent table in a

restaurant that his or her cigarette smoking is bothering you, you are providing that person with feedback.

If feedback is positive, it's likely to be given promptly and enthusiastically. However, like most of us, administrators don't enjoy being the bearers of bad news. They fear offending or having to deal with defensiveness by the recipient. The result is that negative feedback is often avoided, delayed, or substantially distorted. The purposes of this text are to demonstrate the importance of providing both positive and negative feedback, and to identify specific techniques to give feedback more effectively.

Key Behavioural Dimensions

1. Supporting negative feedback with hard data
2. Focusing on specific rather than general behaviours
3. Keeping comments impersonal and job-related
4. Ensuring the recipient has a clear and full understanding of the feedback
5. Directing negative feedback toward behaviour that is controllable by the recipient
6. Adjusting the frequency, amount and content of feedback to reflect recipients' past performance and estimate of their future potential

Key Concepts

GOAL SETTING Providing feedback can encourage those employees who previously had no goals to set some.

MOTIVATION Positive feedback provides motivation through reinforcement. Negative feedback can pinpoint areas requiring improved performance.

PERFORMANCE APPRAISAL Feedback and performance appraisal are closely intertwined. The performance review is a specific application of feedback concepts.

COMMUNICATION One of the steps in the communication process is feedback. It is a check to ensure the sender's message is received as intended.

CONTROL SYSTEMS Control systems monitor performance and seek to correct significant deviations from the standard. Feedback is a means for controlling employee behaviour (in contrast to controlling operations, finances, or information). Discipline Discipline is a specific form of behavioural control.

Communicating Across Cultures

To study the skills necessary for effective cross-cultural communication, students are required to explore subject matter not often dealt with in a typical classroom setting. Communicating across cultures integrates a number of topics, including self-awareness, listening and feedback. It is one of the more complex skills in a study of interpersonal relationships. The modern workplace is rarely homogeneous when measured in terms of workers' native language and cultural heritage. As well, many government departments are sourcing, selling and staffing business activities

around the world. The need for cross-cultural communication skills is great. Today's workers regularly interact with individuals and groups who represent cultures different from their own. To be successful, they are expected to conduct themselves with communication savvy. This has had a significant influence on corporate training programs. Because of this expectation, cross-cultural communication skills are increasingly a component of corporate training curricula.

Key Behavioural Dimensions

1. Assume differences until similarity is proven.
2. Emphasize description rather than interpretation or evaluation.
3. Interpret words, motives and action from the perspective of the other culture.
4. Treat your interpretations as guesses until you can confirm them.
5. Ask for and pay attention to feedback to make sure that your evaluation of words and behaviour is accurate.
6. Avoid the use of stereotypes to explain the behaviour of people from different cultures.

Key Concepts

PERCEPTION Just as discussed earlier, Valuing Diversity, perceptions influence our behaviour and skills in a multicultural environment. The more generalized our perceptions, the more likely we are to stereotype, which harms our chances of success in cross-cultural communication. The goal is to learn to withhold judgment and to learn to use description instead of interpretation or evaluation in perception.

EMPLOYEE PARTICIPATION The workplace is more productive and cohesive when employees are full participants. In a culturally diverse setting, participation is hindered when individuals who represent a minority voice feel detached from others and less welcome in groups and processes. Wellintended managers who are not able to create an inclusive workplace environment might focus on cross-cultural communication skills in order to close the gap.

GROUP DYNAMICS Groups and teams develop and mature when there is realistic knowledge and appreciation for the resources all members bring to the group. Multicultural groups face greater-than-average challenges due to generalized perception, stereotypes and interpretation that may preclude or delay knowing the true characteristics of all group members. When groups have cross-cultural communication awareness and skills, they are advantaged and able to mature and develop at a faster rate.

STRESS AND CONFLICT It comes as no surprise that a culturally diverse workplace can be challenging, especially when managers and workers are unskilled in communicating across cultures. Workplace challenges, especially those that are interpersonal, intra-group and inter-group create conflict and stress. We are able to lessen conflict and stress by improving individual skills as well as organization-wide knowledge and appreciation for what makes each person unique.

Goal Setting

Subordinates need to know what they're supposed to do and it's the administrator's job to provide this guidance. Administrators frequently dismiss this fact as self-evident. In reality, however, it is frequently just overlooked by busy administrators. Setting goals is a sophisticated skill many administrators perform poorly. Studies have shown that when administrators follow the established goal-setting, they improve their subordinate performance.

Five basic rules guide students in defining and setting goals. Goals should be (1) specific, (2) challenging, (3) set with a time limit for accomplishment, (4) participatively established and (5) designed to provide feedback to the employee. The behavioural dimensions of effective goal setting follow.

Key Behavioural Dimensions

1. Identifying an employee's key job tasks
2. Establishing specific and challenging goals for each key task
3. Specifying deadlines for each goal
4. Allowing the subordinate to actively participate
5. Prioritizing goals
6. Rating goals for difficulty and importance
7. Building in feedback mechanisms to assess goal progress
8. Committing rewards contingent on goal attainment

Key Concepts

PLANNING Management by objectives (MBO) operationalizes an organization's planning system. MBO links organizational goals, divisional goals, departmental goals and individual goals into a unified and coordinated system through development of a hierarchy of goals. The use of goal setting, therefore, improves an organization's planning efforts.

MOTIVATION One of the more well-known motivation theories is Locke's goal-setting theory. Locke argues intentions, expressed as goals, act to direct and increase an employee's efforts. Locke proposes motivation is enhanced when individuals have specific and difficult goals and feedback on their progress toward those goals.

LEADERSHIP The link between goal setting and leadership is evident in discussions of initiating structure or task-oriented behaviour. The leader who exhibits high initiating structure defines and structures a subordinate's role and helps him or her set work-related goals. Performance appraisal Performance appraisal requires some standard against which performance can be evaluated. Goals can provide that standard.

Coaching, Counselling and Mentoring

Administrators are charged with getting work done through others. If this work is to be done effectively, coaching and counselling are critical skills. Both approaches help employees to develop the skills needed to perform effectively. Coaching involves increasing an employee's

abilities—it is a truism that the best managers are excellent teachers and trainers. Counselling involves helping employees deal with more sensitive personal problems, including attitudinal problems. Both coaching and Counselling require the same problem-solving and behavioural skills, which are the foundation for this chapter.

Key Behavioural Dimensions

1. Ask questions to help discover sources of problems.
2. Actively listen to employees and show genuine interest.
3. Demonstrate unconditional positive regard by suspending judgment and evaluation.
4. Seek to educate rather than to assist.
5. Accept mistakes and use them as learning opportunities.
6. Provide meaningful feedback for learning.
7. Encourage continual improvement.
8. Recognize and reward even small improvements.
9. Model the behaviours desired.
10. Help develop action plans for improvement.