
UNIT 2 PERSPECTIVES OF ASSESSMENT

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2.1 INTRODUCTION

In your day-to-day teaching how do you know the progress of learners? You use various verbal and written tests to assess the progress of learners. One of the important roles of teachers is to make professional judgment about learners' performance, and teachers are continuously engaged in decision making process informed by relevant data. Educational assessment is a comprehensive term which includes all the processes and activities reflecting and describing the nature and extent of human learning, reflects the degree of correspondence with aims and objectives of instructional design and activities and pedagogical approaches designed to attain the objectives.

Assessment is integral component of learning and an ongoing process inherent in day-to-day teaching learning activities. It is most significant indicator of learning, and helps the teacher to gather information about the learning style, strengths and limitations of the learners and adjust his/her teaching strategies accordingly. It is also the process to provide feedback to learners about their own learning. Therefore as a teacher it is essential for you to understand the changing perspective of assessment which evolved over the years to integrate assessment practices in your day to day teaching learning process in an effective manner. In this Unit let us discuss about various perspectives of assessment. We will focus on three major perspectives of learning- the behaviourist, cognitivist and constructivist perspectives of assessment and subsequent changes in assessment practices.

2.2 OBJECTIVES

On completion of this Unit, you should be able to:

- explain the concept of perspectives of assessment;
- elaborate behaviourist, cognitivist and constructivist perspective of assessment;
- explain the shift from assessment of learning to assessment for learning; and
- differentiate between assessment for learning and assessment of learning.

2.3 PERSPECTIVES OF ASSESSMENT

As a teacher you are continuously engaged in assessment of the performance of learners which is one of the important functions of teachers. Before we discuss various perspectives of assessment let us spend few minutes on the assessment practices that have been traditionally used in our country. We all are aware of the annual examination system that has existed in our country and still plays an important role in the school education system. The inadequacy of this system has also been realized and highlighted by various policy documents from time to time and efforts have been made to move away from traditional annual examination system to Continuous and Comprehensive Evaluation (CCE), and most recently the term assessment has replaced the term evaluation. We have also moved away from numerical assessment, that is, from marking to grading system. Have you ever reflected on the principles underlying such shifts? In this Unit, let us focus on those psychological principles which have brought change not only in the conceptualization of how learning takes place but also how it should be assessed. In Course BES 123 (B.Ed. first year) ‘ Learning and Teaching’ we have focused on the changing perspectives of learning. In this Unit we shall discuss how change in the perception of learning brings change in the assessment practices as well.

2.3.1 Behaviourist Perspective of Assessment

Assessment has traditionally been influenced with the behaviourist theories of learning. The behaviourist learning theories are concerned about the influence of external environment on human learning. Learning according to behaviourism is based on three basic assumptions. First, learning is manifested by change in behavior; second, environment shapes the behavior; and third, the principle of contiguity and reinforcement are central to the learning process. Behaviourism has tried to explain action in simple causal terms, as it believes that, competence can be achieved by breaking down tasks and activities in small steps and reinforcing the achievement of each step. All of us have experienced how children show their happiness on getting ‘good’ or ‘fair’ in their class work. These comments act as reinforces for further learning among children. Behaviourist theories believe that knowledge could be obtained and transmitted through the manipulation of environment and human beings are passive recipients who have to respond to an active environment. Learners’ natural capacities to draw upon and construct their own knowledge, to develop their own capacities to relate to the environment, both, physical and social are of little relevance in such learning.

Behaviourist learning theories considered learning as association of stimulus and response resulting in change in behaviour. Reinforcement is central to the behaviourist approach and it focused on objective measurement of ability and achievement. This developed the tradition of defining learning outcomes in observable behaviours. Learner's personal experiences and socio cultural context had very little significance in such type of learning perspective. For instance, the socio-cultural context of a child coming from remote or tribal area is entirely different from the children belonging to urban areas. This may affect their learning but was ignored in the behaviourist perspective that focuss on the outcome. The achievement of learners, therefore, become more important and it is presumed that any thing can be taught using reward and punishment. The overemphasis on learning outcomes results in an examination system that encourages rote memorization, objective types test focuss on recall, completion, matching, and multiple choice tests which fit perfectly with what was deemed important to learn. It also results in neglect of the role of individual experiences and complex learning skills like analysis, synthesis, critical thinking, reflection, problem solving, etc. in learning.

Therefore this perspective of human learning has encouraged schools to function as factories to produce learners with higher academic achievement that have been the sole determinant of quality education. Educational systems influenced with behaviourist perspectives follow the typical transmission mode of teaching learning process to fill the minds of young learners with heaps of information and then assess the learner's ability to recall this information through various means of assessment tools. Behaviourist perspective, thus, encouraged the concept of mastery learning based on the premise that most students can master their learning targets, given enough time and suitable opportunity. The basic premise of behaviourist perspective is that competence can be achieved by breaking down tasks and activities into small components or steps. Achievement of each step is acknowledged and reinforced that motivates the learner to move towards the next more complex step. It was assumed that intelligence is evenly distributed amongst learners and can be represented by normal curve. Hence, the purpose of assessment was to place learners at various points of this normal curve. This led to the use of various measurement tools of assessment to discriminate between learners on the basis of their performance. You are familiar with the ranking system where learners are placed according to the marks or grades they obtain in examination, and excellence is determined on how well a learner has performed in comparison to others. The effectiveness of assessment tools from this traditional perspective is based on discrimination index i.e. ability of the test to discrimination between high and low achievers. Consequently both teaching learning process and assessment have predominantly focused on quantification of information.

This traditional behaviourist perspective expected you to determine the learning objectives and outcomes, related assessment tasks and criteria, the performance of learners and grades to be awarded. This led to the separation of instruction and formal (summative) assessment with latter being an objective exercise determining learner's level of achievement and level of readiness to move up to the next stage of learning. Consequently, in the whole teaching learning and assessment process learners remained passive at the receiving end complying to the activities given to them. Learners got very little opportunity for self assessment, which may help them in identifying their own learning gaps and determining their own learning objectives.

We have already discussed that testing played central role in behaviourist teaching learning process. You are well aware of unit tests being undertaken at the end of each unit in our schools. The measurement tools/tests are so designed, that, if the learners memorize and reproduce the answer, it is proof of their mastery over content, whereas actually the learners might have to develop very little generalization ability to use their learning gains in real life situations. It is very well reflected in our day-to-day experiences as well.

This perspective considers that assessment has to be uniformly administered on each and every learner, and individualized assessment based on the needs of individual learners is ignored. Due to emphasis on objectivity in assessment, teachers avoid using qualitative assessment procedures which could have ensured a holistic assessment of performance of the learners.

Check Your Progress 1

- Note:** a) Write your answers in the space given below.
b) Compare your answers with the ones that are given at the end of the Unit.

1. Discuss the basic principles of learning from behaviourist perspective.

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2. What determines the effectiveness of assessment tools from behaviourist perspective?

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2.3.2 Cognitive Perspective of Assessment

In contrast to behaviourism the cognitive theorists, such as Piaget believed that learning is an integral process in which new information is assimilated in ones cognitive processes. We have explained in Unit3 of BES123 various developmental stages of learners identified by Piaget, which influence their learning. Let us quickly recall these stages. Piaget identified four stages of cognitive development i.e. sensory motor stage (0-2years), pre-operational stage (2-7 years), concrete operational stage (7-12 years) and formal operational stage (12-adult). According to Piaget these stages play crucial role in the learning of children and they cannot learn certain things until they have reached to that level of cognitive development. In other words the mental readiness of the learner plays a crucial role in learning and should be considered for assessment as well.

The ‘child centered’ approach to learning evolved out of Piaget’s cognitive development theory which was further reinforced by Bruner with emphasis on ‘active learning’. Both Piaget and Bruner stressed on the importance of activity in learning which the learner can observe, practice, manipulate, modify and construct his/her own knowledge. They also stressed on relating new learning to the previous experiences of the learners. Piaget recommended giving

challenging tasks to activate the thinking process which may facilitate the learner to reach equilibrium through the process of adaptation. From Piaget's perspective though the task/ activity may be challenging but it should be according to appropriate developmental stage of the learner, otherwise the learner may not be able to learn. Therefore, from the cognitive perspective the cognitive development of the learner determines the assessment method, and tools to be used to assess the performance of learners. Clearly, there is no single or uniform method of assessment from this perspective. Assessment is not linear from this perspective; instead, it is a spiral and continuous process. Therefore as a teacher you have to inbuilt assessment in the activity itself and determine the assessment procedure according to the developmental stage, experience, and exposure of the learner.

2.3.3 Constructivist Perspective of Assessment

Let us now discuss as to how concept of assessment has been reconceptualised due to change in learning theories from behaviourist to constructivist perspectives. As we have already explained in Unit 3 of BES123 constructivism believes in active involvement of learner in the process of learning. Learner's personal experiences play important role in constructivist learning and each learner generates his/her own rules and mental models which are used to make sense of experiences. According to constructivism, knowledge is actively constructed by the individual and learning is an adoptive process based on these experiences. Consequently the mechanistic view of learners as passive recipient of knowledge has been replaced by the view of learners as situated and active knowledge constructors. Therefore while from behaviourist perspective any thing can be taught with the help of reinforcement, from constructivist perspective previous experience of learner is more important and a deciding factor in learning. Knowledge according to constructivist epistemology cannot be transferred uniformly to all learners, hence teaching and learning can not be synonymous. For instance, in a class a teacher teaches the same content to the whole class but learners process the information according to their own experiences and learn differently the same content.

A basic premise of constructivism is that individuals live in their own world of personal and subjective experiences and build new knowledge on the basis of their previous experiences, rather than new knowledge being imposed from outside. This premise of learning includes how children learn, as well as learning with understanding, and not limited to what they learn, that is, the end product acquired through rote memorization. Therefore, assessment is directed towards assessment of understanding the learners rather than their surface knowledge and ability to recall facts. As constructivist perspective of learning emphasizes the experiences of learners and their socio-cultural contexts in the learning process, organizing new information around the existing conceptual framework of learner facilitates learning. Concept mapping, therefore, plays very crucial role in constructivist learning and facilitates transfer of learning and problem solving from one conceptual framework to another. Assessment from this perspective has to be context specific and cannot be uniformly used for all learners. Usually children in schools come from different socio-cultural backgrounds. Tribal children, for instance, often have difficulty in communicating and understanding standard Hindi language due to their unfamiliarity with the standard language used in school. Therefore while assessing the language ability of such children, differential assessment procedure has to be adopted. It is expected to assess

learner’s ability to link ideas, apply knowledge and solve problems. The assessment process is expected to challenge the incomplete understanding and pre- concepts of learners, and should help the learner to modify and refine their thinking through appropriate scaffolding and feedback. It means that you cannot use a single standardized test on all the learners and have to adopt a variety of assessment tools.

Assessment from this perspective should provide feedback on how learning is taking place and how it can be ensured in the future. In other words, assessment should reflect not only the present level of development of learner but also the level of potential development. Constructivist learning approach, therefore, encourages an assessment culture where assessment is embedded in the whole teaching - learning process and focuses on ‘assessment of the process of learning in addition to that of its product’ (Birenbaum *in Segers et el* (ed) 2003). Hence multiple assessment procedures are used to develop learner’s profile through authentic, contextualized assessment tools. Learners become engaged participants in sharing and developing criteria, in self and peer assessment , reflecting on their own learning, keeping track of their own performance and utilizing feedback to refine their knowledge, skills and behaviours. Teachers facilitate learners to develop strategies for learning and assessing. Assessment therefore, is spiral and formative while from behaviourist perspective, assessment is considered as linear and summative process. To summarise, the focus of assessment, in constructivist perspective has shifted from assessment of learning to assessment for learning.

Check Your Progress 2

- Note:** a) Write your answers in the space given below.
b) Compare your answers with the ones that are given at the end of the Unit.

3. How learning is an integral process? Explain it in view of Piaget.

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4. What is the nature of assessment in constructivist perspective?

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5. ‘Learning and teaching can not be synonymous’. Explain it in view of constructivist perspectives of learning and assessment.

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6. ‘Learning and teaching can not be synonymous’. Explain it in view of constructivist perspectives of learning and assessment.

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2.4 ASSESSMENT OF LEARNING AND ASSESSMENT FOR LEARNING

In the previous section we have discussed behaviourist, cognitivist and constructivist perspectives of assessment, and the shift in focus of assessment from the outcome to the process of learning itself. Viewed from this perspective assessment can be put into two categories: assessment of learning, and assessment for learning. Recently another category of assessment has also emerged, that is assessment as learning. Let us now discuss these concepts.

2.4.1 Assessment of Learning (AOL)

We have seen that the objective of assessment from behaviourist perspective is to assess the extent of learning that has taken place at a particular point of time, for instance, after teaching a lesson or unit, you might be interested to know the level of achievement of students on the content you have taught and therefore you give them some test for it. The predominant objective of assessment in schools is assessment of learning. You might be using various forms of tests to assess the quantity and accuracy of learners' work represented through grades or marks. This type of assessment tells you as to how well the students are performing in comparison to certain criteria such as 'high and low achievement' or 'pass or fail', etc. School report card of students provide feedback to parents about the progress of their wards as well.

Similarly, at the larger scale, State level or National level surveys are conducted to assess the performance of students at different levels. The focus of such assessment is to rank order students in groups in terms of their position within the group such as first or second, and so on. Although such type of assessment has long historical tradition and is widely accepted by schools and parents alike, but, it has several limitations and doubts have been raised about the reliability and validity of such type of assessment procedures. Assessment from this perspective has been considered as a means to achieve the goal of mastery learning. This approach led to identifying minimum levels of learning (MLL). The National Policy on Education (NPE) 1986, revised in 1992 and its Programme of Action (POA 1992) stressed on minimum levels of learning (MLL) which subsequently led to stage- wise and subject- wise development of MLL by the NCERT. Traditionally assessment of learning has been carried out in our schools with the help of numerical assessment (0-100) or grades (A-E), etc. and is summative in nature reflecting how much a learner has achieved at the end of learning any concept and unit. Assessment of learning, therefore is summative and linear which is carried out with the objective to ascertain what the learner has learnt after teaching is over. It is the end product of learning.

2.4.2 Assessment for Learning (AFL)

In the preceding section of this Unit, you have seen that traditionally assessment of learning is done after the task is completed with the objective to assess the outcome of learning. In this section let us focus on assessment for learning where assessment is inbuilt in the whole process of teaching learning itself.

We have already discussed in section 2.3 the importance of the role of individual differences from cognitivist and constructivist perspective which play crucial role

in human learning and needs to be considered in any decision making. Three things are essential while assessing learners:

- the understanding of how learners learn,
- how a learner is progressing with reference to himself/herself. We have also discussed the concept of Zone of Proximal Development (ZPD) of every learner. Each learner, therefore has to be assessed according to his/her ZPD to ensure maximum learning. Assessment from this perspective tells us how the learner is progressing and what more can be done to facilitate him/her to reach to their maximum capacity; and
- as teacher we are also interested to know the learner's progress with reference to his/her peer group and the criteria set by the teacher.

Therefore, assessment for learning is much broader term and refers to formative assessment, though it is not simply formative assessment, that takes place in order to take decisions to inform the next stage of learning (Earl, 2003).

As learners have different experiences, background and learning styles, and they construct their own knowledge based on these experiences, learning needs to be considered as a continuum. Assessment for learning ensures that the learner is able to translate and reflect in his/her behavior whatever he/she has learned. Hence, Assessment for learning is viewed as spiral and part of the learning process itself in which learners play a central role in evaluating their own progress. It is ongoing and individual process and helps the teacher to take decision on the level of understanding of the learner and plan teaching learning strategies accordingly. It is essential for improving the performance of the learners. For AFL, you have to collect wide range of data so that you can modify your teaching learning strategies according to the needs of your learners. Grading in AFL is not done with the objective of merely making comparative judgment of learners' achievement, but, to know their strengths and limitations and provide them feedback that will help to improve their learning. It also helps the teacher to bring suitable modification in teaching learning process to ensure learning. The crucial question in AFL is 'what comes next in learning'. Both teachers and learners are decision makers in this process and the information about learners' present level of achievement is taken to help them to reach to their Zone of Proximal Development (ZPD).

It is essential to clarify at this point that though AFL is formative in nature, but, it is different from what traditionally has been referred to as formative assessment. While formative assessment is about being more frequent, AFL is about being continuous. Likewise formative assessment is undertaken by the teacher to gain feedback on learner's progress, while AFL is about informing learners about their own progress. Formative assessment tells teachers who is meeting the standards and who is not but AFL tells teachers about the progress of each learner towards meeting the standard while learning is happening and there is still scope to help them.

Therefore, AFL directly influences learning by reinforcing the connection between assessment and instruction. It is interwoven in day-to-day teaching learning process and uses information to plan suitable strategies based on the learning style of learners. It also encourages active participation of learners in utilizing information to self- assess, regulate and monitor their own learning. Teachers

play the role of facilitator, guiding, coaching and scaffolding to lead learners towards a learning destination which is clearly understood by both teacher and students. Clearly AFL is different from formative assessment. AFL is therefore focused on how learners learn instead of what they learn, and facilitates them to improve their learning and not just limited to providing feedback to them about their performance.

Assessment for learning helps the classroom processes and results into instructional interventions designed to increase and not merely monitor learning. These instructional decisions are jointly taken by learners and teachers working as a team. Hence learners become consumer of assessment information and use it for their own progress. NCERT has recently developed class wise learning indicators for English, Hindi, Urdu, Mathematics, Environmental Studies, Science, Social Sciences and Arts Education for the elementary stage. These indicators are supposed to help in a number of ways by:

- Understanding learning as a process.
- Focusing and understanding children's learning on a continuum of learning.
- Respond positively to the diversity and helping all children to participate fully and achieve well.
- Providing a reference point for parents , children and others to understand the learning of every child in a simple way.
- Providing a framework for monitoring, learning and reporting progress about the child. (NCERT 2014, p2).

Therefore assessment for learning helps you to use it as a tool to develop learner's knowledge, understanding, skills and values which they are able to reflect in their behavior.

The third term being used is **Assessment as Learning (AAL)** which occurs when the learner personally monitors his/her own learning, assimilates the required changes, accommodates and adapts to these new changes. It provides opportunity to learners 'to monitor' what they are learning and use feedback to make adjustments to their understanding (Earl, 2003). The learner critically evaluates situation, asks reflective questions to him/herself and considers a range of activities to learn. He/she uses personal experiences and knowledge to construct meaningful learning. In such type of assessment comparison with others becomes unnecessary. The learner compares his/her learning own prior achievement and his/her aspirations and targets for continued learning. For instance, suppose you wish to get 'A' grade in your examination but you received 'B' in your assignment. You try to reflect on the reasons why you could not get 'A' grade, use this feedback on the assignment grade to overcome your shortcomings so that you may improve and get your desired grade. You are engaged in assessment as learning. Assessment as learning therefore includes self - assessment by learners to take informed decisions about their own learning. The reference point here is learner's own previous learning and the desire to achieve some goals specified him/herself instead of being determined by the teacher. Therefore, while in assessment of learning and assessment for learning the teacher plays an important role, in assessment as learning the learner him/herself initiates assessment process with the objective to achieve some goals he/she has set for him/herself.

Check Your Progress 3

- Note:** a) Write your answers in the space given below.
b) Compare your answers with the ones given at the end of the Unit.

7. Explain the concept of ‘assessment of learning’.
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8. Explain the concept of ‘assessment for learning’.
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9. Differentiate the major difference between assessment for learning and formative assessment.
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10. Differentiate between assessment of learning and assessment for learning.
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2.5 LET US SUM UP

In this Unit we have discussed the changing perspectives of assessment from behaviourist to constructivist approach. Traditionally we have been following behaviourist perspective in our schools specifying targets/goals in terms of measurable and achievable behaviours which lead to criterion and norm reference testing procedures using various types of assessment techniques. Concept of minimum levels of learning (MLL) and mastery level of learning emerged from this behaviourist perspective and dominated the education sector for very long period of time. However, slowly the attention is shifting towards considering learning as individual and subjective phenomena based on the experiences of learners, that is the cognitivist and constructivist perspectives. In such circumstance assessment is considered to be inherent in the teaching learning process itself and facilitate the learner to improve further based on their experiences. Hence it is spiral instead of being linear process and focus has now shifted towards indicators of learning performance of students. Assessment of learning and assessment for learning reflect these two perspectives of assessment. In the end we have also discussed about assessment as learning which is a self monitoring mechanism of the learner where he/she evaluates his/her own performance against the goal he/she has set to achieve.

2.6 REFERENCES AND SUGGESTED READINGS

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2.7 ANSWERS TO CHECK YOUR PROGRESS

1. Learning is change in behavior resulting from the interaction of individual with the environment.
2. The tool's ability to distinguish between high achievers and low achievers determines its effectiveness.
3. As per Piaget, learning is an integral process in which information is internalized in ones cognitive processes and learning occurs through internal processing of information through assimilation, accommodation and adaptation. From this perspective how information is presented is equally important and learners perceive the entire situation as a whole then see its various aspects.
4. Self-assessment, peer group assessment, collaborative learning and assessment.
5. Knowledge according to constructivist epistemology cannot be transferred intact from one individual to another and therefore, learning and teaching cannot be synonymous.

6. In constructivist learning, social context plays important role as knowledge is acquired through social interaction. Therefore, collaborative learning and peer interaction facilitate learning.
7. Assessment of learning has little scope for enhancement of learning of the learners. It only assess the performance of the learners in a defined learning task or criterion.
8. Assessment for learning has a wider scope for assessment as well as enhancement learning abilities of the learners. It helps the learners to get feedback of learning and also to acquire new knowledge through the use of assessment techniques.
9. Formative assessment provides feedback to teachers about the achievement of learners so that they may modify their instructional strategies accordingly. While assessment for learning is a part of learning process where learner plays important role and teacher plays the role of facilitator of learning.
10. Self exercise (Refer 2.4.1 and 2.4.2).

2.8 GLOSSARY

Accommodation - Accommodation is a term developed by Jean Piaget to describe the process in which we modify existing cognitive schemas in order to include new information.

Adaptation - Adaptation refers to an individual's ability to adjust to changes and new experiences, and to accept new information. The ability to adapt helps us grow mentally and continually develop.

Assimilation - Assimilation is a cognitive process that manages how we take in new information and incorporate that new information into our existing knowledge.

Behaviourism - Behaviorism defines learning as a more or less permanent change in behaviour. In behaviourism, the learner is viewed as passively adapting to their environment.

Cognitivism - Cognitivism involve how we think and gain knowledge. Cognitivism involves examining learning, memory, analysis, synthesis, problem solving skills, and intelligence.

Concept Mapping - Concept mapping visually illustrates the relationships between concepts and ideas. Concept maps begin with a main idea (or concept) and then branch out to show how that main idea can be broken down into specific topics.

Constructivism - Constructivism is often divided into two aspects: Social Constructivism (based on the work of, e.g., Vygotsky) and Cognitive Constructivism (based on the work of, e.g., Piaget). Constructivism revolves around the notion that learners construct new knowledge based on their existing knowledge; constructivism builds on this idea by maintaining that this process happens most effectively when the learner is in the process of constructing their knowledge. See also Social Constructivism.

Contiguity - Contiguity is a behaviourist approach that states, for learning to occur, the response must occur in the presence of or very soon after a stimulus is presented, or an association will not occur. In essence, this is a behaviourist view based on the idea that learning will occur only if events occur relatively close together in time.

Internalization - Internalization is the process of acquiring learning and to learn something so that it can be used as the basis for production whenever required.

Mastery learning - Mastery learning refers to a category of instructional methods which establishes a level of performance that all students must master before moving on to the next unit/class (Slavin, 1987).

Minimum Levels of Learning (MLL) - Expected learning outcomes defined as observable terminal behaviours in a subject at a particular standard.

Reinforcement - The process of encouraging or establishing a belief or pattern of behaviour. Positive feedback leads to reinforcement.

Stimulus – An object or event that elicits a sensory or behavioural response in an organism.

