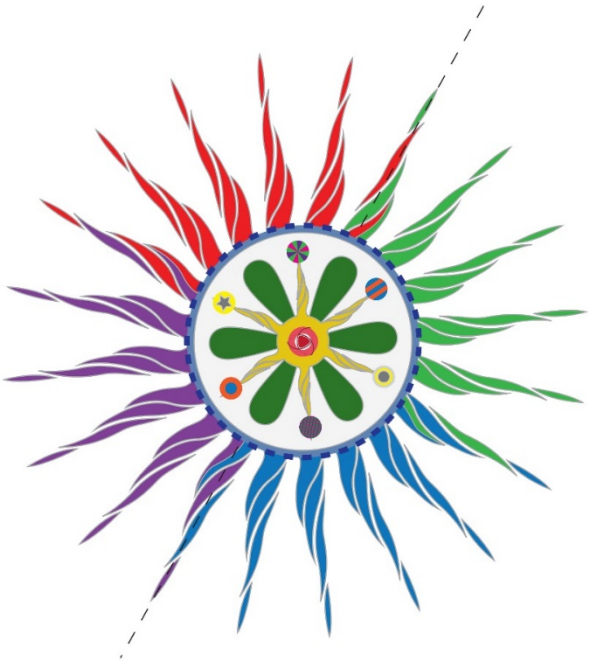
The Ecological Approach

&

Exploratory Practice

The Emerging, Post Method Approach to Communicative Language Learning

English Language Learning (ELL)
English Language Teaching (ELT)



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Communicative Language Teaching (CLT), using prescribed, 'correct-way' methodologies are unlikely to deliver proficiency in the use of language, nor communicative competence, according to S. Bax of Christchurch University, New Zealand, J. Gil & R. Najar of Flinders University, Adelaide, South Australia, and R. Roest of Aldersgate College, Singapore. It is appropriate therefore to trace Communicative Language Teaching (CLT) practitioner points of disagreement, the dilemma facing CLT, the emerging post-method practices of the Ecological Approach, affordances which are central to it, and Exploratory Practice in English Language Learning (ELL) and English Language Teaching (ELT).

Literature Review (Details in Foot Notes / References):~ Professor David Block, Professor Martha Cummings, Dr. Stephen Bax, Dr. Jeffrey Gil, Dr. Robyn Najar, Dr. J. Brown, Dr. A. Collins, Dr. P. Duguild, Professor B. Kumaravadivelu, Dr. I. Tudor, Dr. Alastair Pennycook, Dr. A.S. Canagarajah, Dr. Robert Philipson, Dr. D. Held, Dr. A McGrew, Dr. D.Goldblatt, Dr. J. Perration, Dr. C. Sullivan, Dr. S. McKay, Dr. C. Kramsch, Dr. P. Sullivan.

ELT and practitioner points of disagreement regarding associated issues pertaining to language learning are important for language teachers everywhere, according to Professor David Block. The question is, how discussions about the impact of globalisation in sociological circles will relate to their approach to language teaching and day-to-day practices.[1]

- Some see globalisation as having commenced in 15th century Europe, when Europeans began to map and colonise the world, others see it as a phenomenon of the latter part of the 20th century.
- Some see globalisation as *une affaire conclude,* others see it as *les travaux encours,* unequally developed in different parts of the world.
- Some see globalisation as both progress, progressive and beneficial, others see it as a pervasive force of late modernity which takes away all that is authentic and meaningful in life.
- Some see globalisation as hegemonically Western and today an extension of American imperialism, others see the process as more egalitarian and reject the notion of Western dominance over the rest of the world.
- Some discuss globalisation in a prescriptive way, as a way of life that should be adopted, others see it as a sociological descriptor of events evolving.

With the above issues in mind, Drs. Held, McGrew, Goldblatt & Perration contend there are three general responses [2] from the hyper-globalist, the sceptic, the transformalist in relation to the question as to what is actually happening.

[1] **Professor David Block – ELT Journal, Volume 58/1, Oxford University Press, January 2004.**

[2] **Global Transformations: Politics, Economics and Culture – Drs. D. Held, A. McGrew, D. Goldblatt, J. Perration – Polity Press, Cambridge, UK.**

The response of the **hyper-globalist** is that the world today is a 'new world' and, one without precedent; global capitalism, governance and culture have replaced local institutions such as local financial institutions and businesses, national governments and local cultures. The hyper-globalist holds the view that globalisation has upset old established hierarchies and ways of life. The response of the **sceptic**, usually neo-Marxist oriented, is that the world is living in an age of capitalism, opportunism, armed with sophisticated and efficient information technology to achieve its aims. The response of the transformalist is that the world is living in an age of greater upheaval and change, with unprecedented levels of interconnectedness among nation states, local economies and cultures, which are due in part to technological developments.

Until recently, the hyper-globalist view dominated ELT circles; they believed that the spread of English language was a benign outcome of globalisation forces. During the early 1990s this view was called into question by Robert Phillipson, [3] who reflected the view of the sceptic. Others, such as Drs. Alastair Pennycook [4] and Suresh Canagarajah [5] see ELT as much more complex; they represent the growing category of transformationalists who view this phenomenon from a variety of perspectives, ranging from critical to the post-modern. Only two decades ago the hyper-globalist envisaged the world learning English via one dominant methodology, and one type of pedagogical material - CLT in its various forms. The work of Drs. Phillipson, Pennycook, Canagarajah and others cautioned the ELT League to consider the social, political and economic factors which they assert came into play when methods and materials are imported across borders. This is particularly the case if materials are pre-packaged and not in context with the local, regional situation. They argue that such methodologies and materials might turn out to be risky and problematic. The result has seen an awakening of the need for a more **reflective** and **nuanced** approach to language teaching materials in different parts of the world. [6]

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[3] **Linguistic Imperialism – Dr. Robert Phillipson, Oxford University Press, Oxford, UK, 1992.**

[4] **The Cultural politics of English as an international language – Dr. Alastair Pennycook, Longman, London, UK, 1999.**

[5] **Resisting linguistic imperialism in English teaching – Dr. A.S. Canagarajah, Oxford University Press, Oxford, UK, 1999.**

[6] **Appropriate Pedagogy – Drs. C. Kramsch & P. Sullivan, ELT Journal 50/3, 1996.**

"GLOBALISATION RISKY? HOW D'YOU MEAN?"

Continued reliance on prescriptive, imposed and imported methods,[7] which attempt to teach English by Textbook and Learner Workbook, specifying the way to undertake activities and 'correct' learning processes. This approach is essentially teacher-centred in nature, usually not in context and likely to create unrealistic expectations among learners and practitioners themselves. Reliance on prescriptive methods without the ability to depart from standard procedures, processes, demonstrate a lack of understanding of the learning process.[8]

Literature Review (Details in Footnotes / References):~ Professor B. Kumaravadivelu, Dr. Jeffrey Gil, Dr. Robyn Najar, Dr. Stephen Bax, Dr. S. McKay, Daniel Spichtinger MA.

The CLT dilemma is to rethink how to teach English in terms of context learning and a more perceptive learning approach, so to teach English in a responsible way, minimising negative impact on local, regional and national languages, cultures and the development of a 'National English Language'.[9] A major impediment responsible for ELT mode of practice, is that English Second Language (ESL) has become Big Business, and is influenced by commercial, self-interest policies to comply with market forces.[10] Henry Widdowson warned in 1992 of tendencies by the ESL League to trim standards making ELT 'cost effective', standardised, in keeping with the Business Model, with enterprise profit the main objective. As a consequence, English language teachers with an ethical mind are presented with difficult issues, to which there are no easy answers. If, however, CLT dilemmas are viewed in terms of TESOL professional responsibilities, perhaps guidelines might be established for a more informed practice of language teaching in a globalising world – ***hence this writing.***

The central goal for ELT should be to develop ways of teaching English that lead to **additive bilingualism,** and a National English Language. As the term 'additive' implies, the goal should be incremental, not the opposite. This way of teaching English will not lead to diminishing the first language, nor the loss of indigenous culture, heritage and identity.

TESOL professional responsibilities, therefore, may be firmly and safely centred on the combined approach: **The Ecological Approach & Exploratory Practice.**
This approach and practice emphasises situated-contexts and affordances, which are central to this combined approach, as are a learner-centred environment, schools operating as "Learning Organisations", designed grouping strategies, dialectic thinking, and learner profiling - How the Individual is Intelligent/How the Individual is Intellectually Functional - to enable a Progressivist educational philosophy orientation.

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[7] **Teaching English as an International Language: Rethinking Goals and Approaches – Dr. S. McKay, Oxford University Press, UK, 2002.**
[8] **From Dilemma to Professional Responsibilities – Drs. J. Gil, R. Najar, Finders University, Australia, TESOL in Context, Special Edition, Volume 52, 2009.**
[9] **Teaching English as an International Language – Dr. S. McKay, Oxford University Press, UK, 2002.**
[10] **ESL and EL Teacher – Henry G. Widdowson, ELT Journal, Volume 46/4, 1992.**

The complexity of and diversity of language learning in-context, the ten language learning macro-strategies and the four keys to language learning, ALL suggest the prescribed method approach in combination with inflexible conditioning and the short-

term intensive approach to language learning, are NOT consistent with attainment of English language proficiency.

Literature Review (Details in Foot Notes / References):~ Dr. Stephen Bax, Dr. Jeffery Gil, Dr. Robyn Najar, Professor B. Kumaravadivelu, Dr. Leo van Lier, Dr. P. Harjanne, Dr. S. Tella, Professor D. Norman, Professor R.K. Elliott, Richard Allwright MA, Dr. John B. Watson, Dr. J. Willis, Dr. Donald Freeman.

The emerging post-method approach and practice and the issue of professional responsibility connected with the emerging approach is a matter for ESL practitioners. The continued reliance on imported prescriptive methods for language learning is often an attempt by language centres to compensate for deficiencies in resources and expertise. Now practitioners have a clear choice, according to Stephen Bax, and Richard Roest. The Ecological Approach is a more perceptive learning approach, tends to emphasise situated-contexts, and is consistent with the nature of learning. It is a process of discovery, of constructing personal and shared meaning from information and experiences through understanding. All is filtered through the individual's uniquely different perceptions.[11] During the learning process, learners construct their own meaning and interpretations on the basis of previously existing understandings and beliefs.
This approach is quite different from the one that imposes, often meaningless to learners, because material is out of context and therefore constitutes an approach that conditions through habit formation, repetition and drills – rote learning.
In prescribed CLT, the approach to language learning is essentially rooted in the Audio-Visual method with the Behaviourist philosophical orientation. Occasionally other methods are included or combined depending on the language centre's language learning outlook – methodologies such as The Natural Approach, Total physical Response, Community Language Learning, Content-based Instruction, to name but a few.[12]
These methods all refer to overt learner behavior – observable behavior – NOT necessarily what the learner is thinking or feeling.[13] The Behaviourist Approach no longer ought to be the foundational approach; aspects, however, might still be used, but as a tool. A learner state of mind is more than mere overt behavior. [14]

It requires the expertise of a ***professional practitioner*** to teach English language in the Ecological Approach, because it requires a Progressivist educational philosophy orientation, not merely being a degree qualified individual only to satisfy the notion of

[11] **The American Psychological Association Presidential Task Force on Psychology in Education, The Mid-continent Regional Education Library.**
[12] **4th annual TESOL Conference 2009 – Professor Martha Cummings, ELT in Vietnam, The Post-Method Era.**
[13] **Behaviourism – Dr. John Watson, W.W. North, 1990.**
[14] **About Behaviourism, Drs. B.F. Skinner, Knopf- Random House, 1974**

Credentialism. [15]
Language centres tend to 'slot' people into teaching roles as long as they have a recognized university degree; whether they can or know how to teach is not a primary consideration. In reality language centres are little more than a resource placement agency run by administrators looking for a return on their investment – all else is secondary.
It must be realised that language learning is more complex than most would suppose. It is not a matter of merely learning regurgitating 'speech acts' and structured standard phrases – this approach merely trivialises language, treats language as a habit structure, which it is demonstrably not.
Post-method approach and practice adoption are more likely to meet the needs of learners in terms of ***use*** of English language. It is therefore appropriate to explore **situated-contexts** before looking more closely at The Ecological Approach itself, affordances and Exploratory Practice, each of which need to be understood also if change is to take place.

J. Brown, A. Collins, and P. Duguid [16] advocate challenging the tendency to separate what is learnt from how it is learnt and used. They argue that the learning task in which knowledge and skills are developed is neither separable from nor ancillary to learning, nor is it neutral. The task is an integral part of what and how it is learnt. This way of learning is **fundamentally-situated.** The Ecological Approach *and* Methods Approach do both reflect a concern for the processes of language learning – however, the former varies with the Methods Approach in concern regarding the concept of being fundamentally-situated on the one hand, and interaction between the agency of learners and the frameworks in which it exercises that agency on the other. It should be realised that there are other vital aspects that affect the learner; Professor B. Kumaravadivelu suggests a shift to Post-method pedagogy because it embraces an *in situ*, socio-cultural and political positioning in a three-dimensional framework:

A) A pedagogy of **particularity** rejects the imposition of a predetermined set of generic principles and procedures aimed at realising a set of generic aims and objectives. Rather, it subscribes to a pedagogy that supports the advancement of context sensitive, location specific methods that are based on an understanding of local linguistic, socio-cultural and political characteristics – fundamentally-situated.

B) A pedagogy of **practicality** seeks to empower the practitioner by encouraging them to theorise from practice, and practice what they theorise. This will have the effect of

[15] **How to Succeed in School Without Really Trying, Professor D. Labaree, Yale University Press, USA.**
[16] **Situated Cognition and the Culture of Learning – Drs. J. Brown, A. Collins, P. Duguid, Educational Researcher 18/1, 1989.**

moving the power-knowledge base away from theorists and non-practitioners and returning it to the practitioner *in situ*.

C) *A* pedagogy of **possibility** rejects the view of language learning as being limited to the classroom only. It seeks to access the socio-political consciousness that participants contribute to, which may be used as a catalyst for identity and social pathway transformation and development.[17]

What this means, according to Professor Martha Cummings, is that

i) No one method, approach, can meet the needs of all learners in all places, at all times and at the same time,

ii) Theories must be generated by practitioners, not necessarily researchers for harmony to exist between thought and action – not unlike Donald Freeman's inquiry-oriented research,[18]

iii) A discovery of ways in which learners can explore the possibility of understanding both local and global cultural issues.

Stephen Bax from Christchurch University, New Zealand, argues that the Context approach is a technology which tries to focus attention on ecology while contributing guidance in relation to procedure, evaluation and reflection. [19]

[17] **Toward a Post-method Pedagogy – Professor B. Kumaravadivelu, TESOL Quarterly Volume 35/4, 2001.**

[18] **Doing Teacher Research; From Inquiry to Understanding – Dr. D. Freeman, Heinle & Heinle, 1998.**

[19] **Rethinking Methodology : The Role of Context – Dr. S. Bax, Christchurch University, NZ, 2006.**

The Context Approach

Stage 1	Stage 2	Stage 3
Improve awareness of all aspects of context.	**Plan and teach lessons being constantly aware of responsiveness to unfolding context.**	**Evolution and Reflection. Think of how to deliver lessons differently next time. Consider whether learners are getting what they need.**

Start the cycle again

Knowing a language involves being able to communicate. (Communicative competence)	**One better learns language, if all aspects of the learning context are taken into account.**	**One better learns language, if communication is involved in one way or another.**

←-- Underlying goal --→ ←---------- Implicit theory of learning ----------→

(including context)

Therefore

Consider all aspects of the learning context.

Identify ways of teaching which take into account context and language as communication.

Methodological aspects meshed with Context

Context Analysis	**Less autonomous practitioners** should follow more standardised classroom procedures.	Creative reflections and evaluations, using the Four Keys to Language Learning.
	Autonomous practitioners should develop own procedures, considering the Four Keys to Language Learning	Affect, Language input, Language output, Form.

The complexity of and diversity of language learning contexts

Ten Language Learning Macro-strategies [20] [21]

1) Maximise learning opportunities – affordances,
2) Minimise perceptual mismatches,
3) Facilitate negotiated interaction through negations,
4) Promote learner autonomy within groups,
5) Foster language awareness as communication,
6) Activate intuitive heuristics,
7) Contextualise linguistic input,
8) Integrate language skills,
9) Ensure social relevance,
10) Raise cultural awareness.

The Four Keys to Language Learning [22]

Key One - **Affect**

Feelings and attitude when one learns a language.

Key Two - **Language Input**

One cannot learn a language if one does not receive the right input, quality, and the right amount of input and quality. One needs much listening and reading experience and the right kind of listening and reading.

Key Three - **Language Output**

One needs to use the language in a spontaneous interaction with natural feedback.
This output must be of the right quality. One needs to practice in speaking and writing, and it must be of the right quality.

Key Four - **Form**

Accuracy is important.

However, to some extent the underlying features of CLT principles resonate with Post-method pedagogy, but without the prescriptive and imposed nature of CLT.
The Ecological Approach represents ***human perceptual learning and development in***

[20] **The Post-method Condition: Emerging Strategies for Second/Foreign Language Learning – Professor B. Kumaravadivelu, TESOL Quarterly, Volume 28, 1994.**
[21] **Towards a Post-method Pedagogy – Professor B. Kumaravadivelu, TESOL Quarterly, Volume 35, 2001.**
[22] **A framework for task-based learning – Fr. J. Willis, Longman, 1996.**

context, with the concepts of affordances and Exploratory Practice central to it.
Ian Tudor explains the Ecological Approach as a reality, which dynamically emerges from the actions and interactions of people working with specific contexts that operate according to the rules that are proper to each as a reality in its own right.[23]
Stephen Bax and Richard Roest suggest that the various aspects of a situated-context all exert an important influence on language teaching and learning. Aspects such as:

Individuals
Personal differences, learning styles, learning strategies, personal motivational needs.

Classroom culture
Grouping strategies, dynamics, group motivation, classroom environment, school environment.

Local culture
Regional differences, status of practitioners, milieu of students, attitude and behaviour of parents, local environment.

National culture
Political context, religious context, social context, national environment.

"I feel like you're limiting me to correct answers."

Affordances are central to The Ecological Approach; they constitute an index of opportunities for action provided by the environment for the perceiving and engaged

[23] **The dynamics of the language classroom – Dr. I. Tudor, Cambridge University Press, 2001.**

individual according to Pirjo Harjanne and Seppo Tella.[24]
Leo van Lier is of the view that in order for some property to turn into an affordance, such transformation expressly depends on how an individual reacts. He emphesises the relationship between the actor and the object, as well as the actor's observation and action in relation to the object. Affordances do not refer to the actor's capabilities, qualities, nor to any quality of the target action, only to the relationship between them. He concludes that interactions with others constantly provide pedagogical moments or learning opportunities.[25]

For practitioners this means that interactions with and among learners allow for perception, thought, acting and interacting with others to occur, rather than being mere passive receivers of knowledge, or the recipients of rehearsed, scripted out of context data. A significant refinement to affordances was made by Donald Norman, who differentiated perceived affordances from objective performances; this refinement suggests that affordances are not only dependent on the actor - object relationship, the actor's capabilities, but also on experiences, expectations, attention and perception levels.[26] Although these refinements would seem difficult to measure, they would appear in general terms conducive to the study of interfaces, usability and adaptability.
A poor interface is known to discourage efforts of exploring; it is not difficult to imagine how well these prerequisites hold true for language teaching materials. This aspect is clearly demonstrated by metaphors one hears every day. Metaphors such as - '***They got lost in the amount of information', 'They only turned on during set drills, because it's what they are familiar with', 'They just won't speak', 'They only repeat', 'They just like to be entertained, playing games'*** – are all manifestations of cognates and mnemonics. Resort to Practitioners, like other professionals, tend to the use of metaphors when it comes to describing their experiences. The late Professor Elliott was of the view that theories of learning too, are somewhat dependent on metaphors, because they are centrally concerned either with mental acts and conscious processes or with operations of mental mechanisms below the level of consciousness, all of which are describable only by metaphorical means.[27]

Affordances appear to have a resonance of their own – some learners can understand a particular language better than others, whereas some may be completely deaf to that language. In the same fashion, one may consider *the relationship* between a language and a

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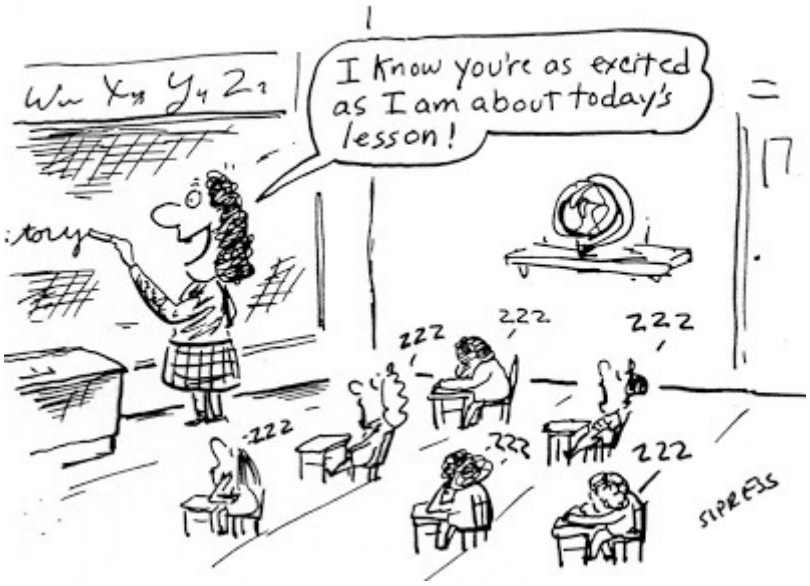
[24] **Can we afford any more affordances? – Drs. P. Harjanne & S. Tella, Foreign Language Education Specific Reflection, University of Helsinki, 2007.**
[25] **The Relationship between Consciousness, Interaction and Language Learning – Dr. L. van Lier, Language Awareness Volume7, 1998.**
[26] **Affordances, conventions and design – Professor D. Norman, Interactions, Volume 6/3, 1999.**
[27] **Metaphor, Imagination and Conceptions of Education – Professor R. K. Elliott, Heinemann, UK, 1984.**

language learner an affordance according to Pirjo Harjanne and Seppo Tella. Dr. Leo van Lier suggests that language learning is, from an ecological perspective, not a process of representing linguistic objects in the brain on the basis of input received. He contends that language is something one learns to use, something one learns to live with and live in. He exemplifies this insight with an ecological comparison in which the knowledge of language for a human is similar to the knowledge of the forest to a forest dweller. [28]

Affordances in a classroom are not only linguistic according to Pirjo Harjanne; she demonstrated how the practice of context within the teacher-studying-learning process provided students with many social and linguistic affordances that were perceived and harvested by students as opportunities for ***social*** and ***verbal*** interaction with others.

By utilising affordances, therefore, the language learner will come to notice that language is not only a personal empowerment tool, but also one's **intelligence partner**, a new context creator and a mediator in both communication and social interaction-agent between actors. [29] As a consequence, practitioners should provide learners with a full and varied semiotic budget in language teaching.
That is, practitioners should structure the learner's activities so as to ensure active and spontaneous participation for access through encouraged tasks that are ***meaningful***, of ***interest*** and are **fundamentally-situated**.



Exploratory Practice (EP), is a process that seeks to empower practitioners by bringing a research perspective into the classroom where everyday classroom activities are used to reflect consciously on their effectiveness in supporting knowledge acquisition.

[28] **From Input to Affordance: Social-interactive Learning from an Ecological Perspective – Dr. Leo van Lier, 2000.**
[29] **Can we afford any more Affordances? – Dr. Pirjo Harjanne, Helsinki University, 2006.**

[30] EP is consistent with the Ecological Approach, as both are contexualised, in situ, responsive to learner needs and thus are more likely to result in learning experiences that are ultimately relevant and meaningful.
The practice is sensitive to socio-cultural context and takes into account the larger learning context, learner values, backgrounds and experiences. The message is also empowering and supportive of the individual. The process of classroom investigations is not an artificial research structure as an investigative implement, according to Richard Allwright. This implement includes a predisposition to reflect on the familiar and views the familiar in a different light through a filter of new ideas.
The development of EP in terms of principles is to record epistemological decisions about the ultimate aim of teaching / learning – **work to understand**, rather than **work to solve a 'problem'.** (Principles **1** & **2**)
This, to gain understanding to goings on in the classroom, 'life in the classroom'; the remaining three are about working to bring individuals together for mutual benefit:

Principle **3** - **Involve everybody**,

Principle **4** - **Work to bring individuals together**,

Principle **5** - **Work a continuous enterprise**.

Richard Allwright makes the following suggestions:

1. **Minimise extra effort for all concerned**,

2. **Integrate work for an understanding into existing 'working life' of the classroom – *what actually happens in the classroom in terms of learning refinement.*** [31]

Criteria for integrating research and pedagogy:

Relevance - Practitioners bringing in research into their own teaching, should ensure that what they explore is relevant to themselves and the students.

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[30] **Developing Principles for Practitioner Research: The Case of Exploratory Practice – Richard Allwright MA, The Modern language Journal, 2005.**

[31] **Exploratory Practice: An Appropriate Methodology for language Teaching Development? – Richard Allwright MA, 2000.**

Reflection – Practitioners should work towards ensuring that integrating research and pedagogy promotes reflection by both learners and practitioners themselves.

Continuity – Practitioners should ensure that integrating research is continuous.

Collegiality – Practitioners should aim to use the integration of research and pedagogy to bring together colleagues.

Learner development – Practitioners must provide learners with affordances, ensuring that questions asked are seen as relevant and contributory to development and that learners and practitioners alike reflect on experiences.

Practitioner development – There is little benefit integrating research into teaching, unless it contributes to the practitioner's own development.

Theory building – All the above should enable practitioners to develop a general understanding of classroom language level, and a foundational life-in-classroom barometer by building articulated understandings of classroom experiences.

Problems that practitioners might encounter when bringing research into the classroom:

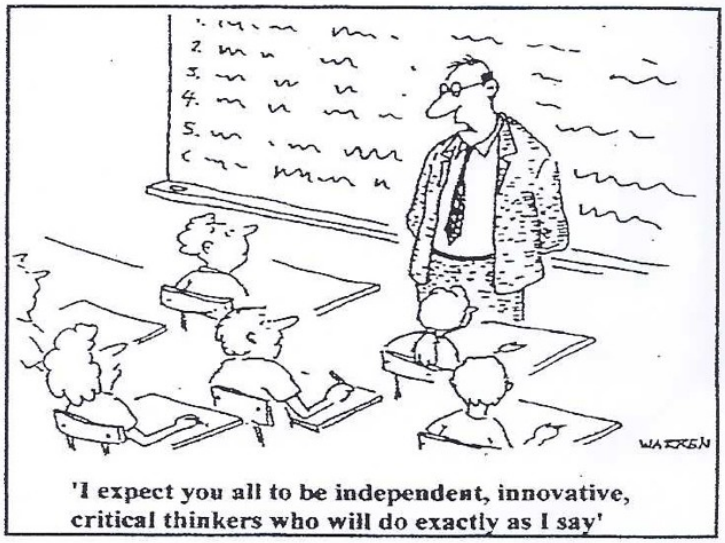
Time commitment – Research in the classroom is a time consuming endeavour; it will increase lesson preparation time because of practical and ethical issues. It will also necessitate gauging what has been learnt as a consequence of adopting this practice, making time and effort key issues.

Skills building & ongoing study commitment – Being a practitioner involves learning new skills; specifically, the skills required to conduct research satisfactorily require reading and ongoing study quite outside the normal repertoire of practitioners.

Risk to self-esteem & standing – Conducting research in and into the classroom does constitute a risk of discovering things a practitioner perhaps would rather not face; it therefore poses a potential threat to self-confidence. Another risk factor is the possibility of endangering continued employment. A practitioner commencing a research programme and who identifies a problem, might well be perceived as *being* the problem compared to colleagues who are careful not to involve themselves in research activities. It should be borne in mind that language centres are prescribed methodology and 'correct-way-teaching' oriented and foremost concerned with self-interests.

Exploratory Practice, Richard Allwright advocates, is therefore better engaged by first redefining the term 'problem' so as to avoid this misunderstanding. As to procedures

matching the criteria he set, he admits that further research is necessary particularly in relation to the usage of procedures in helping practitioners in the use of activities for increased pedagogic potential. He believes that there are four different, though clearly related possibilities following initial exploratory investigation.
The most obvious is that the original term 'problem' – the matter under investigation - may have been misconstrued in this process of Exploratory Practice, and that it might be prudent to move to a different interpretation of the term.
'Puzzle' - 'A new puzzle emerging from the old one', as he puts it. [32]
However, the process is not explained, not articulated by Richard Allwright; therefore, what actually takes place in terms of 'life in the classroom' remains a mystery.
The ultimate aim of the practice – to understand, rather than to problem-solve, understanding classroom life, may be difficult to achieve given this shortcoming.
According to Richard Roest, it may not just be a case of one not being able to inspect technical core and devising practice procedures alone …
Rather, it may be a case of discovering a cognitive and normative framework for the recording and processing of what one observes and learns from Exploratory Practice; a framework providing insights with regard to learning refinements through grouping strategies, affordances and 'negation of negation' - dialectic thinking - that holds the key to understanding of what ***actually takes place*** in the classroom. [33]



To underscore the need for change from prescriptive CLT methods in ELT, practitioners ought to reflect upon fundamental aspects of teaching such as Face-to-Face Classroom Practices, different teaching and learning approaches such as The Behavioural Approach, The Socially-oriented Affective System, Different Ways of

[32] **Exploratory Practice: An Appropriate Methodology for language Teaching Development? – Richard Allwright MA, 2000.**
[33] **Dialectic Thinking/A School Tutorial/Mentoring Programme – Richard Roest (D.Ed.)**

Knowing – Multiple Intelligences. Reflection may have practitioners more completely understand the substantive content in relation to the Ecological Approach, affordances, and Exploratory Practice.

Literature Review (Details in Footnotes / References):~ Professor John B. Carroll, Professor R. Slavin, Dr. John B. Watson, Dr. Burrhus Skinner, Dr. Gilbert Ryle, Dr. Albert Bandura, Professor Howard Gardner, Dr. Thomas Armstrong, Dr. David Lazear.

Face-to-face classroom practices concern learning at school – definition, evaluation, methodology and component make-up. School learning is equal to opportunity and perseverance times ***time spent*** divided by ***time needed*** – an equation formulated by Professor John Carroll in 1963. [34] It is perhaps appropriate for practitioners to pause and reflect upon this equation, given the importance it affords to time. Today, ESL courses are linked and compressed in time-frame, stair-cased and 'spurred', making for intensive and rushed instruction, a mode not favourable to attaining language proficiency no matter the approach.

Time spent is defined as a function, and the measure for opportunity is ***time made available for learning.***

Perseverance is the engagement rate that learners are actually on the task, a function related to **engagement** and **time**. [35]

Time needed is defined as a function of aptitude, ability to *understand instruction*, and the *quality of instruction*. Aptitude is the ability to learn academic material, and a 'measure' of this variable is known as ***Intelligence Quota* (IQ)**.

(Richard Roest is of the view that one simply ***cannot*** measure intelligence - **How intelligent is the individual?** is a question and matter quite different from ***How the individual is intelligent and intellectually functional*** …)

School learning = Function of **Time spent** …… (Direct Instruction)

Time Needed

Clearly, the aspect of Time is a central aspect to learning and matter that practitioners ought to ponder seriously,

but

is this equation still in balance today?

Professor John Carroll referred specific variables related to school learning which have since been equated with scores in standardised tests in basic skills. Important variables not taken into account were the inclusion of family, learning environment and community as they were deemed to be indirectly related to school achievement.

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[34] **A Model of Learning – Professor John Carroll, 1963.**

[35] **Educational Psychology: Theory into Practice – Professor R. Slavin, 2006.**

However, world changes over the last fifty years required a focus on additional outcome measures beyond achievement of mere basic skills to be included.
Additional outcome measures such as *practitioner expertise*, *manner of conveyance*, *lesson planning* and *classroom management*. These variables created a **new equation**:

Learning Output = Function of Context + Input + Process

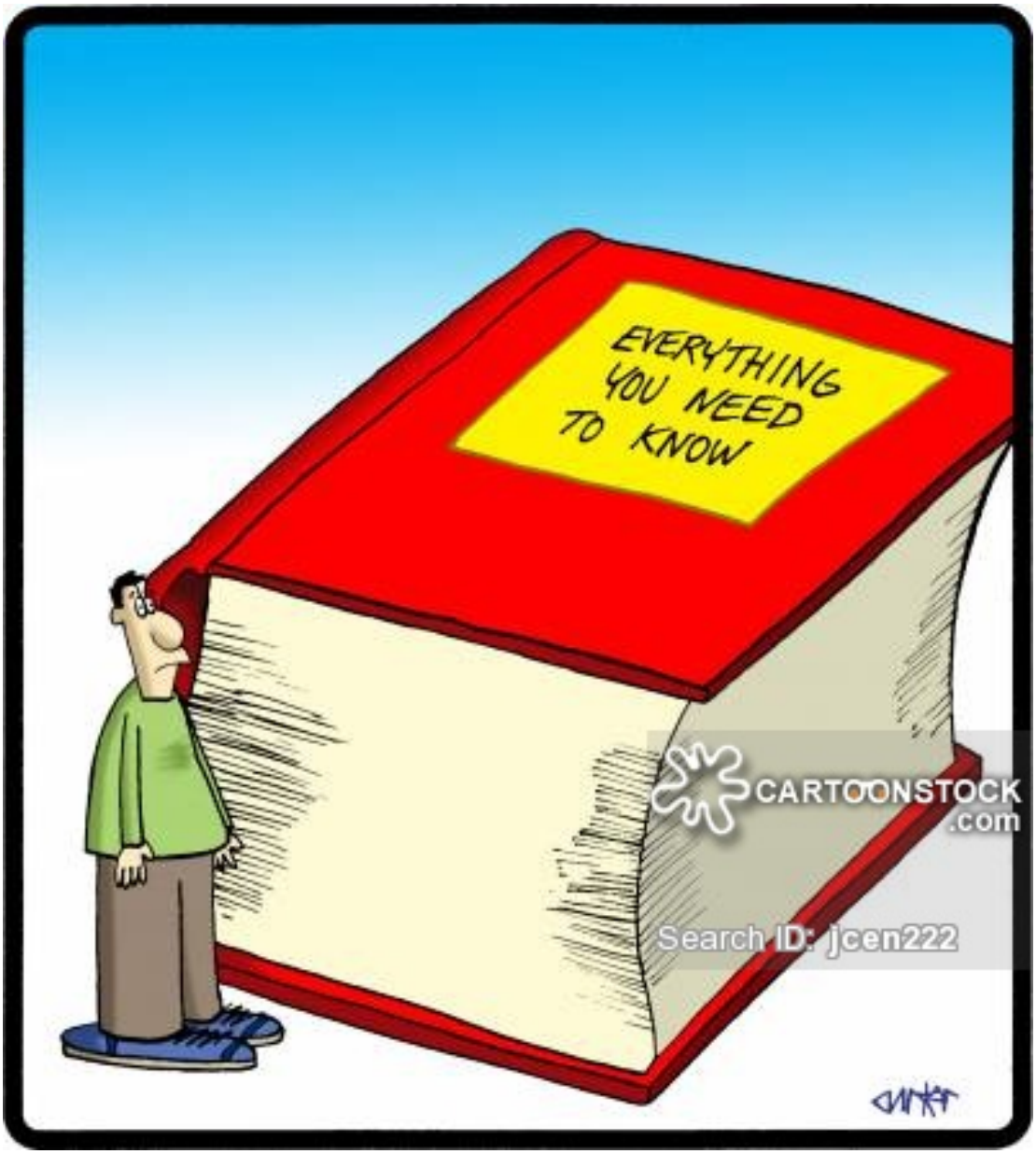
Output is learner achievement, social skills and cognitive development.
Context includes environmental factors such as learning environments and changing global conditions that influence the measurement of learning outcomes, input and process variables.
Input includes practitioner and learner characteristics.
Process includes thinking, feelings, commitments and practitioner/learner actions in and outside the classroom, interaction and collaboration.

Academic Learning Time (ALT) is the variable that has replaced 'time spent' or 'engagement time' in Professor John Carroll's original equation. ALT is the amount of time learners spend covering curriculum content; that is, only that content which is subject to short-answer standardised testing.
Curriculum Content is subject to three variables, namely **content overlap**, **involvement** and **success.** ALT is the result of decisions about time allocation at school and the classroom; even a small change in the variable factors can lead to substantial differences in ALT.

In a world where there is seemingly no general agreement **what** to teach youth never mind **how**, together with the revelation that ***actual*** learner **Time Needed *and*** it's function have eroded, diminished over time, it comes as no surprise that one in five learners today are touched by depression during the years of secondary and higher education.

An equation, symbolised by the 'equal' symbol (=) means an equally balanced state,
a state of equilibrium.

Does the new equation still hold true in face-to-face teaching today?



Teaching and learning approaches are thought to broadly consist of three general operational approaches – firstly, one can develop instructional activities that take into account individual differences. Secondly, one can provide an array of grouping strategies to down-size classes taking into account student backgrounds,

achievements, abilities and attributes. Thirdly, one can modify conditions within which learner 'building' takes place – the approach to Mastery Learning according to Professor Benjamin Bloom. Of the three general approaches, individualised instruction may seem to be the best way to deal with learner differences, but is in practice difficult to accomplish in the traditional face-to-face classroom setting. However, Computer Assisted Instruction (CAI) may affect this situation, a phenomenon evidenced today in the form of online, distance education, a rising alternative approach to English language learning, for example.

Literature Review (Details in foot Notes / References):- Professor Benjamin Bloom, Professor Howard Gardner, Callum Coates, Drs. Renate & Geoffrey Canin, Dr. Carol McClintic, Dr. Karl Klimek, Dr. Arthur Costa, Barbara Prasling, Richard Roest MA, D.Ed, Drs. D.W. & R.T. Johnston, Dr. Kurt Lewin, Dr. A Kolb, Dr. Jan Pederson.

Different learning approaches for the purposes of this writing, different learning approaches will focus on Grouping Strategies, Mastery-experimental-action Learning combined with the Ecological Approach and Exploratory Practice in a learner-centred environment. It is perhaps the optimum formula-mix for face-to-face classroom instruction at this point in time. Before exploring grouping strategy, it is fitting to first provide some insight into Mastery Learning with Experimental / Action Learning explored thereafter. [36]

The great majority of learners can learn what is normally taught in schools, **providing they are given enough time**, ***developmental level appropriate instruction***, ***constructive learning effort assessment and feedback.***

Enough time may be interpreted as time required demonstrating mastery of objectives, and appropriate instruction may be interpreted to mean breaking the course into units of instruction, the identification of unit objectives, and the requirement for learners to demonstrate mastery of objectives in relation to a unit before proceeding to other units. Learning effort assessment is usually determined by a grades appraisal system – the actual number of objectives mastered, the number of units completed, the proficiency level reached in relation to each unit, or a combination of the foregoing.

Learners may work at a pace of their own choosing, if the course is so structured but usually Mastery Learning is accomplished with group instruction in the traditional face-to-face classroom environment. This approach holds that learners must have the prerequisite skills to move to the next unit.

[36] **Learning for Mastery – Professor Benjamin Bloom, University of California, 1968.**

Practitioners should be required to undertake task analysis and preparation, thus to be better able to teach the unit. Practitioners should be tasked to state objectives before designating activities and should resist separating the learning task from what and how it is learnt.
Failure cycles can be eliminated by this approach, an especially important aspect in relation to minority and disadvantaged learners. However, the disadvantages of this approach are that not all learners progress at the same pace and this requires learners who have demonstrated mastery to wait for those who have not. Practitioners should therefore have a variety of conveyance and materials for teaching, as learners learn in different ways - unfortunately, instruction is usually delivered in the same fashion for all. If objective only tests are used, learners may succumb to rote-learning, rather than higher levels of application through meaningful and challenging experiences, thus attaining an understanding of subject matter conveyed. Group strategies therefore are imperative in a cognitive-social sense to negate this variance in same pace progression. If group strategies are employed, four different rudimentary approaches are in evidence:

Between-class ability grouping,

Within-class ability grouping,

Individualised instruction within the class,

Collaborative learning.

Learner grouping strategies are not understood - if in evidence, such practice is usually rather arbitrary and therefore ineffective. Mankind exhibits a deep-seated tendency to create and form groups, a tendency not consciously practiced in the classroom – this tendency is age old, is natural, and learners themselves tend to group, pair, but on the basis of friendship, comradery.
Groups also distinguish themselves from others through a conscious decision to mark themselves in a prescribed manner and scholars are not sure whether such decorations are carried out for group-marking purposes or whether man's ancestors were already conversing with one another in some kind of protolanguage, or how such markings related to other early forms of symbolisation, ranging from funerary rites to cave paintings. Archeologists and anthropologists do believe that the application of marks, attire and colours differentiate groups from one another and represents an important and enduring characteristic of mankind to this day.

Grouping strategies can introduce learner individuality factors, where learners reveal their uniqueness in a personal contribution to the group in terms of 'good work', thereby facilitating a 'We-culture', a sense of belonging, without surrendering individual self-efficacy beliefs, providing the grouping strategy is specifically designed to facilitate this

outcome. This approach moves away the traditional, narrow and still prevalent numeracy / literacy ability measurement, a system that tends to categorise, label individual learners in a fashion not dissimilar to a ranking contest, which process is unlikely to provide the learner with a gateway to Active and Experimental Learning.

Ability-Grouped-Active-Teaching (AGAT) [37], whether between-class ability or within-class ability is an example of a method that tends to label and categorise learners. 'Ability-grouped' Active teaching can be limiting in that the practitioner may be accustomed to having only two or three categories of learners for classroom management purposes. The issue is the term 'ability'; some learners may perceive the application of this rather crude standard measurement device as a devaluating influence and experience, effectively creating a barrier to an open class cooperative learning process. This is especially relevant to adolescents in cultures where scholastic achievement, the concept of IQ measurement, and 'ability-ranking' still hold great import. [38] A cooperative learning strategy has demonstrated ability to impact standard achievement measures as well as group interaction and collaboration, facilitating Experimental Learning. Action theory examines the actions required to achieve desired consequential outcomes – D. W. Johnson & R. T. Johnson believe that when one generates an action theory based on one's own experiences and continually modify same to improve effectiveness, one learns experimentally. [39]
This type of learning affects the learner in three ways [40]:

Cognitive structures alter,

Attitudes modify,

Perceptions, values and behavior patterns change.

Kurt Lewin presents twelve principles, known as the Lewian Experimental Learning Principles [41] [42] [43]:

Principle One – Effective Experimental Learning will affect the learner's cognitive structures, action theories, attitudes, values, perceptions and behavioural patterns.

Principle Two – The individual will believe more in the knowledge he / she has experienced than in knowledge conveyed by others.

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[37] **Educational Psychology – Professor A.K. Najak & Dr. V.K. Rao, 2007.**

[38] **Leadership Management Institute – Asia Pacific Cultural Values & Leadership Education, 1990.**

[39] **Effects of Cooperative & Individualistic Experiences: Goal Structures on Computer Assisted Instruction – Johnson & Johnson, 1981.**

[40] **Effects of Cooperative & Individualistic Experiences: Goal Structures on Computer Assisted Instruction – Johnson & Johnson, 1986.**

[41] **A Dynamic Theory of Personality – Dr. Kurt Lewin, 2007.**

[42] **Principles of Topological Psychology – Dr. Kurt Lewin, 2007.**

[43] **Experimental Learning: Experiences as the Source of Learning & Development – Dr. D.A. Kolb, 1984.**

Principle Three – Learning is more effective when conveyed in an active rather than in a passive form.

Principle Four – Acceptance of new action theories, attitudes and behavioural patterns do not occur in an *ad hoc* fashion; one's cognitive, affective and behavioural systems require alteration.

Principle Five – To change action theory, attitudes and behavioural patterns involve more than just information alone.

Principle Six – First-hand experience by itself to generate valid knowledge will not necessarily suffice; besides experience, there is a requirement for a theoretical system that the experience tests out, as well as reflection on the meaning of the experience.

Principle Seven – Behavioural changes may be temporary unless action theory, feelings and attitudes underlying them are changed.

Principle Eight – Perceptions of self and of others in relation to social environments are necessary before changes can occur in action theory, attitudes and behaviour.

Principle Nine – The social environment should be supportive, accepting and caring if one is to freely experiment with new action theory.

Principle Ten – In order for changes in behaviour patterns and attitudes to be permanent, both the individual and the social environment may be subject to change.

Principle Eleven – It is easier to change an individual's attitudes and behavioural patterns than a group's.

Principle Twelve – The individual accepts a new system of action theories, attitudes and behavioural patterns when he / she accepts membership of the new group.[44]

There are three teaching formats known as goal structures, according to Johnson & Johnson; cooperative, individually competitive and individualistic. Goal structures are based on the idea of interdependence among learners and there are three types of positive interdependence, namely **pooled**, **sequential** and **reciprocal** interdependence. Cooperative goal structures are in operation when two or more individuals are in task-

[44] **Educational Psychology – Professor A.K. Najak & Dr. V.K. Rao, 2007.**

related efforts helping others to be rewarded.
Collaborative learning might fit into this category of goal structure, with the distinction that this type of learning involves a peer-tutoring, mutual support aspect enhancing a supervised self-directive, participatory and reciprocal learner / practitioner learning environment. This style works well with adolescent learners, providing the scheme is properly planned and allowed a carefully planned class 'recruitment period' for it to take hold. [45] A variety of peer-tutoring models do exist fit into the category of cooperative learning goal structures, but none feature Multiple Intelligences in terms of Essential Learning Styles and learning Style Dimensions that define the individual learner.
Such design would reflect aspects of learner uniqueness, the attraction of opposites – dialectics – the notion of argument, counter-argument and synthesis for enhanced learning.

There is a relationship between goal structures and methods of evaluation which can be used; namely, norm-referenced or criterion-referenced evaluation.
Individual competitive goal structures demand a norm-referenced form, whereas cooperative goal structures demand a criterion-referenced system.
Many educators still believe that individually competitive goal structures remain domiciled at colleges and universities, whereas cooperative goal structures are established at secondary level education.
However, there are indications that this aspect may be changing.

Practitioners as well as learners have seemingly been 'conditioned' by CLT methodologies, all of which exhibit a Behaviourist learning presumption. This school of thought suggests that learning is a result of habit formation through conditioning and repetitive drills, generally giving rise to a mode of knowledge conveyance not dissimilar to the Audio-Linguistic Method of the 1960s, according to Martha

[45] **Master of Arts Thesis - Richard Roest, Aldergate College, Singapore, 2012.**

Cummings. It is appropriate, therefore, to explore this aspect in greater detail as language learning at many centres still largely adhere to this mode of conveyance, but also to better understand the socially-oriented Affective System.

Literature Review (Details in Foot Notes / References):- Dr. Albert Bandura, Dr. Lee Ross, Dr. M.D. Storms, Professor Peter Gray, Professor Hans Eysenck, Peter Sheppard, Professor John B. Watson, Professor B.F. Skinner, Dr. Gilbert Ryle.

The Behaviourist Approach to learning is quite specific; it focuses on how the environment impacts overt behavior. The psycho-motor domain is associated with overt behavior and the way to understand what is in the mind, according to Behaviourists, is to observe behavior. Behaviourism resists any attempt to define mental expressions. Its primary focus is about what people do, not what they feel or think. From observations, many ESL learners as well as practitioners appear to have been conditioned by the Behaviourist School of thought. There are different degrees of conviction – Soft and Hard Behaviourism. Hard Behaviourism is an ontological position that immaterial minds do not exist. Professor's Soft Behaviourism holds the view that mental events cannot be characterised independently from overt behavior. [46] Professor B. F. Skinner refers to Soft Behaviourism as Methodological Behaviourism; he holds the view that the Behaviourist Approach should be used for instrumental purposes only, as mental state is more than just behaviour. [47]

There is another approach called Philosophical Behaviourism; this approach holds that all human mental states can be analysed through behavior and refutes that mental states reflect anything more than a predictable way of acting.

Dr. Gilbert Ryle, however, contends that the ambit must remain open as complex creatures and complex dispositions do not make it possible to take a concrete, closed stance. Inner states are not usually relevant to explaining mental dispositions – to name a mental event is to make a prediction regarding a person's behavior. [48] Dr. Roger Birkman suggests that while our initial perceptions about another person may be correct, consequent assumptions made are not infrequently incorrect.[49]

Behaviourism is open to critique in that one would logically think that mental events such as pain, or hearing music would involve more than predicted behavior – Behaviourism is primarily concerned with **observable** and **measurable** aspects of human behavior, holds the view that behaviours can be ***unlearned*** when they become unacceptable, and that ***development is a continuous process***.

In looking for a more direct and effective explanation of human social behavior,

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[46] **Behaviourism – Professor John B. Watson, 1970.**

[47] **About Behaviourism – Professor B.F. Skinner, 1974.**

[48] **The Concept Mind – Dr. G. Ryle, 1984.**

[49] **True Colors – Dr. R. Birkman, 1995.**

psychologists sparked the emergence of observational learning – Social Learning Theory. [50] Examples of social learning include modelling, imitation, vicarious learning, identification, copying, social facilitation, contagion and role play – **'operant conditioning'**.
Basic processes in operant conditioning:

Positive Reinforcement (encouragement) – this conditioning presents a stimulus that increases the probability of a response. This type of reinforcement occurs frequently in the classroom – for instance, a practitioner may smile at an individual after a correct response, or commend a learner for his / her good work.

Negative Reinforcement (avoidance conditioning) – this conditioning increases the probability of a response that avoids an adverse, hostile situation. This term is often misunderstood and therefore used incorrectly by practitioners. Many believe that negative reinforcement is harsh punishment that will suppress behaviour – the very opposite appears to be the case. Negative reinforcement increases the likelihood of a behavioural response – negative means taking away, removing something the individual does not like, rather than adding something the individual likes as in Positive Reinforcement.

Adverse Theory (punishment) - this conditioning involves presenting a firm stimulus that decreases the likelihood of a response. Punishment can be effective in stopping undesirable behavior quickly, providing that the punishment befits the 'crime' and is not monotonously regular.

Token Economy – this conditioning is demonstrated when an individual is given tokens for when a desired behavior occurs. Tokens can later be exchanged for objects or privileges. In controlling deviant behaviour, each learner is given an individual token for favourable behavior as defined by the practitioner – tokens are pooled for special awards, such as outings or a special prize.

Self-management – this conditioning enables the individual to learn productive behaviours under carefully controlled circumstances. It involves observing, recording, evaluating and guiding behaviours.

It is a systematic and deliberate process in three stages:

Discriminating when responses occur,
Systematic recording of responses,
Examination, evaluation of observations and guidance.

[50] **Social Learning Theory – Dr. Albert Bandura, 1976.**

Extinction – this conditioning decreases the probability of a response by contingent withdrawal of previously reinforced stimulus.

Shaping (successive approximation) – this conditioning is the process of generally changing the quality of the response. Desired behaviour is broken down into smaller positive movements, each of which is reinforced as it leads toward the overall behavioural goal.

Contracts – this conditioning can be effective to help learners focus on behavioural change. Behaviour should be identified and together, practitioner and learner, should decide what is to be done, how and when.

Time Out – this conditioning is when a learner is removed from a situation where he / she would ordinarily expect to be reinforced and is moved into a situation where he / she cannot be reinforced thus decreasing the probability of a response by contingent withdrawal of a previously reinforced stimulus.

Classroom settings have established ways to organise academic and social behavior – there are a variety of teaching methods for educators and at all levels.
Programmed instruction is one such model - it requires that learning be done in steps with the learner being an 'active participant' so that immediate feedback is available at every step.
Sometimes stimuli are presented according to a schedule of which there are two basic categories: Continuous and Intermittent.
Continuous Reinforcement means that behavior is followed by a consequence each time it occurs.
Intermittent schedules are based on either the passage of time, or the number of correct responses emitted, known as Ratio Schedules.
The consequence can be delivered based on the same amount of time elapsed, the same number of correct responses, or it could be based on a different time variable.

The socially oriented Affective System is essentially about emotion, which has an important place in the individual's personal, social, and working life according to Professor A. K. Najak and Dr. V. K. Rao. As it is a complex aspect, it may be beneficial to define some terms associated with this system:

Affect – a feeling, an emotion as distinct from cognition, thought or action.
Emotion – a more intense feeling; a strong subjective reaction such as love, fear, agitation and panic.
Feeling – a sensation perceived by a sense of touch or an indefinite state of mind, perhaps emanating from emotions, sentiments or desires.
Subjective – proceeding from or occurring in one's mind.

Literature Review (Details in Foot Notes / References):- Professor A.K. Najak, Dr. V.K. Rao, Dr. Albert Bandura.

The socially oriented Affective System was developed by Albert Bandura during the 1970s and beyond.[51] He became aware that a key element was missing from the then prevalent Social Learning Theory - self-belief.[52] He advanced a view of human functioning that accords a central role to cognitive, vicarious, self-regulatory and self-reflective processes in human adaption and change.
Today the individual is viewed as self-organising, proactive, self-reflecting and self-regulating rather than as a reactive organism shaped and shepherded by environmental forces and driven by concealed inner impulses.
From this perspective, Albert Bandura's approach of human functioning is viewed as the product of a dynamic interchange between personal, behavioural and environmental influences.
He is of the belief that people tend to interpret the results of their own behavior to inform and alter their environment through personal factors they may possess.
This is the basis of his concept – reciprocal determination, a view that:

Reciprocal determination causes personal factors in the form of cognition to affect biological events,

Reciprocal determination affects behaviour,

Reciprocal determination affects environmental influences creating interactions,

resulting in a **triadic reciprocal arrangement**.

It is interesting to note that Albert Bandura altered the title of his thought process from Social Learning to Social Cognitive Learning, so to distance his thinking from the prevalent Social Learning theory – he also emphasises that cognition holds a critical position in the individual's capability to construct reality, encode information, perform behaviours and

[51] **Educational Psychology – Professor A.K. Najak & Dr. V.K. Rao, 2007.**
[52] **Self-efficacy: Toward a Unifying Theory of Behavioural Change - Dr. A. Bandura, 1997.**

self-regulate.
Using Social Cognitive theory as a platform, practitioners may work to improve learners' emotional states, correct habits of thinking, erroneous self-efficacy beliefs, and self-regulatory / behavioural practices and so alter 'life' in classroom that can undermine learner success. Therefore, his thinking stands in ***clear contrast*** to those theories of human functioning that emphasise the role of environmental and behavioral play only in the development of learning.
The Behaviourist orientation shows scant regard for self-processes because Behaviourists tend to assume that human functioning is caused by external stimuli – inner person processes are viewed as transmitting rather than causing behavior.
As a consequence, these processes are dismissed as a redundant factor in the cause-and-effect process of behavior.
Albert Bandura believes that psychology without self processes cannot aspire to fully explain the complexities of human functioning.
In order to prognosticate how human behaviour is influenced by environmental and situational aspects, it is necessary to understand how the learner cognitively processes, interprets, organises and actions outcomes.
Social Cognitive theory acknowledges the influences of evolutionary factors in human adaption and change, but it rejects the type of evolutionism that views social behaviour as the product of evolved biology, as other theories of human functioning hypothesise.
Professor A. K. Najak believes that Albert Bandura's thinking does not ***fully*** take into account today's rapid social and technical innovations which create new environmental selection pressures, as these pressures impact on human capacity to adapt and will also influence biological evolution.
It should be noted that Social Cognitive theory espouses a bi-directional conjecture and, as in our natural world, evolutionary pressures ***can*** alter development to the extent that organisms are able to create innovations that, in turn, ***create new selection pressures in relation to functionality***. In humans, as known from the writings of Johann W. von Goethe and Georg Hegel - Goethean and Dialectic Science respectively - matters pertaining to thought, language, and symbolic communication are similarly influenced. This bi-directional influence also manifests itself in the inter-cultural and intra-cultural diversity so evident today according to Albert Bandura.

Social Cognitive theory is anchored in the view that humans are proactively engaged in their own development and make things happen by their own actions.
A key aspect is that, among other personal factors, individuals possess self-beliefs that

enable them to exercise a measure of control over thought, feelings and actions.
Albert Bandura has provided a view of human behaviour in which self-beliefs are critical in control, both as products and as producers of their own environments and of their social systems.
Generally, people do not live in isolation – Social Cognitive thinking expanded the conception of human agency to include collective agency as people tend to form groups, partnerships on shared beliefs about their capabilities, beliefs and common aspirations.
This conceptual expansion makes this thinking applicable to human adaptation and change; it posits that factors such as economic conditions, socio-economic status, educational and family structures do ***affect human behaviour***, but **indirectly**.
However, these conditions **directly** affect and influence ***aspirations, self-efficacy beliefs, personal standards, emotional states*** and ***other self-regulatory influences***.
Rooted within Social Cognitive thinking is the understanding that learners are imbued with special capabilities defining what it is to be human.
Primary among these are the capabilities to symbolize, plan alternative strategies, learning through vicarious experience, self-regulate and self-reflect.
All these capabilities provide the individual with the cognitive means and potential to determine his / her own pathway.
Learners drawing on their symbolic capabilities can extract meaning from their environment and can construct guides for their usual active behaviour allowing themselves to solve problems cognitively, acquire new knowledge through reflective thought, and effectively communicate with others. For both Albert Bandura and Professor Howard Gardner symbols are the vehicle of thought, the latter being of the view that symbolism is the true measure of intelligence. [53] There are those who disagree with Howard Gardner on this issue, Thomas Armstrong for one.
Richard Roest is of the view it is simply not possible to measure intelligence.
He believes the word intelligence is so often used and in a wide variety of contexts that it's proper meaning is misunderstood.
It is not a 'thing', an object that can be weighed, measured. One can measure how the individual is intelligent – *a different perspective entirely*.

However, it is by symbolising that the individual can provide his / her life with structure, meaning and progressive continuity.
Symbolising also enables the individual to store information required to guide future behaviours.

[53] **Frames of Mind – Professor Howard Gardner, 1993.**

It is through this process that one is able to model observed behaviour.
Individuals tend to plan courses of action, anticipate the likely consequences of these actions and set goals and challenges to motivate, guide and regulate their activities.
It is this **planning ability** that enables one to anticipate consequences of actions without actually engaging in them. One not only learns from one's own experiences, but also from observing the behaviours of others.
Vicarious learning permits the individual to learn a novel behaviour without undergoing the trial and error process of performance.
The observation is symbolically coded and used as a guide for future action.
Observational learning is governed by the processes of attention, retention, production and motivation.
Attention refers to selectively observe the actions of a model.
Observed behavior can be reproduced only if they are retained in memory, which process is made possible by the capacity to symbolise.
Production refers to a process of engaging in observed behavior; should this process produce valued expectations and outcomes, the individual is said to have been motivated to adopt the behaviour and is likely to repeat same in the future.

Individuals have self-regulatory mechanisms that provide the potential for self-directed changes in their behaviour. The manner in which and the degree to which individuals regulate their own actions and behaviour involve accuracy and consistency in self-observation and self-monitoring.
The judgements individuals make regarding their actions, choices, attributions, evaluations and tangible reactions are processed through the self-regulatory system.
Evaluation of self and tangible self-motivators act as personal incentives to behave in self-directed ways – hence Richard Roest's **Pin Point Me** as a key element in **A School Tutoring/Mentoring Programme.** (pinpointme.weebly.com)
This most distinctly human capacity of self-reflection and the fact that it is such a prominent feature of Social Cognitive theory, is why every school should have a Tutoring/Mentoring Programme that the Education Team – School, Practitioners, Parents, Community - ***and*** students can understand and relate to. After all, it is through self-reflection that learners make sense of their experiences, engage in self-evaluation and alter their thinking *and* behaviour.

Self-efficacy stands at the core of Social Cognitive thinking – self-efficacy beliefs provide the foundation for human motivation, well-being and personal accomplishment, whether individuals think positively or in a fashion that might be self-debilitating. How well individuals motivate themselves, persevere in the face of adversity, manage their

vulnerability to reactive behaviour and depression are all influenced by **self-efficacy beliefs.**

Self-efficacy is a critical determinant of self-regulation; naturally, knowledge and skills play important roles in learners' personal organisational management, learners' usual active behavior.

They may interpret the results of their attainments just as they make judgements about the quality and extent of skills and knowledge they possess; a key contention as regards the role of self-efficacy beliefs in human functioning is based more on what people believe than what might be objectively true.

Learners who are confident in their academic skills expect high marks, whereas the opposite is true of those who lack this confidence.

Individuals who are uneasy about their social skills may envision rejection or ridicule even before they establish social contact.

The outcomes one expects are themselves the result of judgements of what one can accomplish; outcome expectations are unlikely to contribute to predictions about behaviour, as efficacy and outcome judgements can be inconsistent.

Individuals operate collectively as well as individually and self-efficacy is both a personal and a social construct.

Collective systems develop a sense of collective efficacy; that is, a group's shared belief in its capacity to attain goals and accomplish tasks.

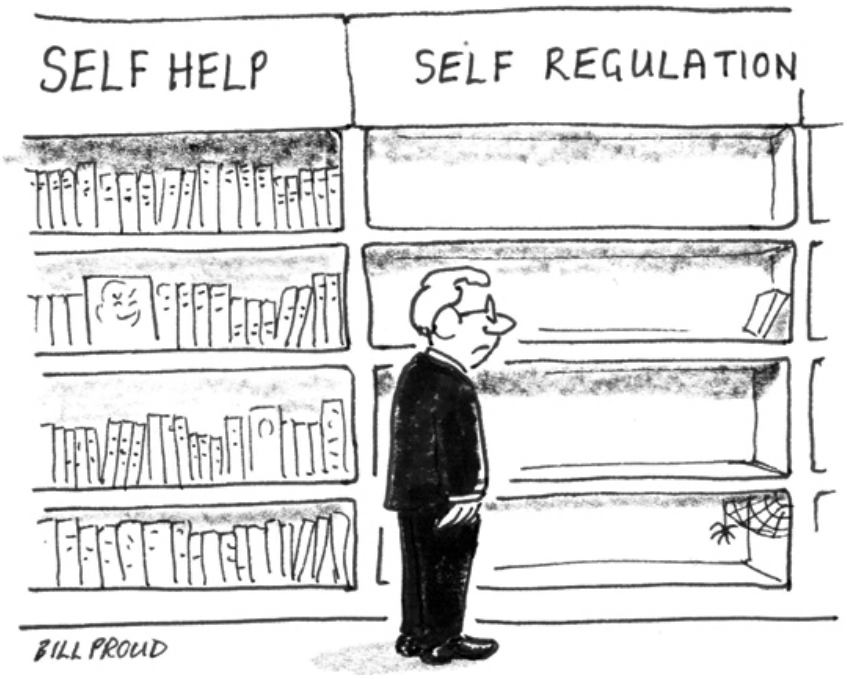
The function of self beliefs can create the type of self-fulfilling prophesy in which individuals accomplish what they believe they can.

It is not so much a matter of what the individual can do, but rather of how **capable** the individual believes himself / herself to be, that is the key to accomplishment.

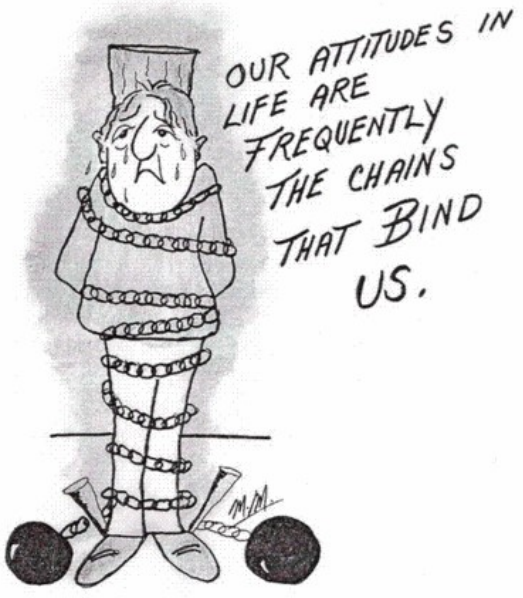
As part of the Affective System it is noteworthy to mention that various emotions, attitudes constitute important dispositions; they ***positively*** and ***functionally*** relate to not only academic success, but also to standing in social and economic environments - dispositions such as honesty, sensitivity, joy, hope, courage, optimism and enthusiasm.

Learners being enthused – enthusiasm - should not be confused with learners being entertained; while it is important that students experience engagement, being entertained – entertainment.

The latter type of instruction, not infrequently evident in the language learning arena, has little to do with learning and more with practitioner professional responsibility.



Self-regulation development



Self-efficacy beliefs

Different ways of knowing is a concept of Howard Gardner – Multiple Intelligences. He advocates inductive reasoning, picturing a wide range of performances that may be used and valued in cultures. He and others are of the view that current methods of conveyance are not developed and wide enough in scope to reach learners. The issue is not necessarily technology in conveyance, but rather the prevailing view of intelligence – if one broadened one's outlook and gave it a different perspective, one might be able to devise more appropriate ways of developing same. [54]

Literature Review (Details in Foot Notes / References):- Professor Howard Gardner, Dr. Thomas Armstrong, Dr. David Lazear, Dee Dickinson, Bill Mollison, Masanobu Fukuoka.

Different ways of knowing spans the breadth of intelligences that as yet have not been established, nor have the number of intelligences been set, as there is not and never can be a fixed, single register of human intelligences. Howard Gardner argues that intelligences are relatively independent of each other but can be fashioned and combined in various ways. The cornerstone of his quest to make a case for multiple Intelligences is three-fold:

- A widening of outlook in relation to acquiring knowledge and developmental psychology; in one direction toward biological and evolutionary roots of knowledge acquisition, the other direction toward cultural variations in knowledge proficiency.

- An examination of educational implications in that it should be possible to draw up and identify an individual's intellectual profile so to enhance the individual's educational opportunities and options in relation to pathways.

- The development of a scheme to nurture, grow the intelligences in various cultural settings and be re-fashionable in the light of the particularities of different cultures – in essence, the development of the individual.*

[54] **Frames of Mind – Professor Howard Gardner, 1993.**

Multiple Intelligences	The traditional concept of intelligence
The make-up of an individual's Multiple Intelligences' profile is ***not*** subject to testing in the traditional sense, rather it is about determining **how** the individual is intelligent.	The traditional view of intelligence – a single general capacity that every individual possesses to a greater or lesser extent. This view holds that intelligence can be measured by efficient, cost effective methods of universal multiple-choice testing, short-answer testing, all to produce a score as an IQ rating. The result then ranks the individual's strengths and weaknesses from the gifted to the individual with perceived learning disabilities. This practice tends to label, rank individuals and only measures two intelligences - literacy and numeracy.
Every individual has a measure of all the intelligences and in a unique combination profile.	The traditional view holds that individuals are born with a fixed amount of intelligence.
Multiple Intelligences pedagogy implies that instruction is based on different profiling and action criteria – teaching to potential.	The traditional practice is to teach the same material in the same delivery style to everyone – a teacher-centred approach.
Learning activities are structured around an issue in question and connects subjects through personalisation and context so that instruction becomes meaningful. A designed learning style group-mix strategy will facilitate individuals to interact, collaborate and actively engage in affordances. This approach will foster multiple modes of understanding as well as develop self-efficacy beliefs through personal contribution to the group.	The traditional practice is to teach topic straight from the book and in a prescribed manner. Often un-contextualised, and therefore largely meaningless.

An outline of Howard Gardner's original seven intelligences, reveals the following key features:

Linguistic intelligence (verbal – word clever)

This potential is related to words and language, written and spoken. It is dominant in Western education systems. Verbal-Linguistic intelligence is awakened by the spoken word, by reading ideas, thoughts, poetry, writing and humour with a play on words and twists of language. [55] [56] [57] Language is ultimately a tool of thought; using it consciously one may enhance one's linguistic intelligence by hearing in one's mind the sounds of speech. This practice reconnects one to the sounds of language and ultimately to the roots of language itself in the oral tradition of medieval times, when books were usually read aloud. This practice will assist one in developing ways of bringing back the reading-out aloud culture and allow one to tap into one's oral roots, thus developing one's oral language capacity. [58]

Spatial intelligence (visual – picture clever)

This potential relies on sight, one being able to visualise an object and includes the ability to create internal mental images. This way of knowing is triggered by presenting the mind with colourful designs, patterns and shapes. The visual learner tends to engage in active imagination; special intelligence begins by looking outwardly at the visible world, which is the central feature of this feature. However, it is in the turning inward and the transformation of such perceptions that reveals the 'wisdom of the eye'. The ability to create subjective visual images is still little understood *, but it represents an important way for individuals to create, remember and process information. [59]

(*Refer to Richard Roest's writing **Dialectic thinking** …- Applying Naturalist intelligence and incorporating J. W. von Goethe's Empiricism, Rudolf Steiner's Bio-Dynamics and Viktor Schauberger's Mutual Interactive Reciprocities one may glean insights into 'wisdom of the eye'. An alternative way of knowing, and a way to 'see' beyond the perceptual blind spots of adherence to conventional scientific philosophy orientation.)

Kinaesthetic intelligence (body – body clever)

This potential is related to physical movement, including the brain's motor cortex which controls body motion. This intelligence is stimulated through physical movement – sport, dance, physical exercise and by the expression of oneself through drama and body language. [55] [56] [57]

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[55] **Seven Ways of Knowing: Teaching for Multiple Intelligences – Dr. D. Lazaer, 1991.**

[56] **Frames of Mind (10th Edition) – Professor Howard Gardner, 1993.**

[57] **7 Kinds of Smart – Dr. Thomas Armstrong, 1999.**

[58] **7 Kinds of Smart – Dr. Thomas Armstrong, 1999.**

[59] **Learning through Multiple Intelligences – L. & B. Campbell, Dee Dickinson, 1996.**

Today's encapsulated mind, often divorced from the sensory medium, is an indication of the split that has occurred in contemporary society between mental and physical faculties, particularly in Western societies.
In ancient times, the body and the mind were considered as one; for instance, the Romans originated the expression *mens sano in copre sano* – a sound mind in a sound body.
Eastern cultures engage in mind disciplines and development through the body with activities Zen, Yoga, Tai-chi and Aikido to mention a few.
In European medieval times, Christians sought to mortify the body as a way to serve the spirit and this practice continues today with Opus Dei devotees.
Thinkers during later enlightenment ignored the body and determined the source of a person's profile to be in the mind. The body appears to function as a barometer of cognitive events with people or situations in its ability to varying extents to control and manage bodily movements and the capacity to manage objects skillfully.
It may present as an inner body feeling, such as the tightening of muscles, the rise of hair in a bodily response gauging correctness or wrongness of or in a particular situation.
Although this barometer is not a 'perfect' method of problem solving, it may lead to a path of perception to a real bodily experience.
During the first two years of a child's life, according to Jean Piaget, thinking takes place through the body – the infant grasps, squeezes, crawls his / her way through life gradually constructing a mental picture of the world. When older, having greater control over the body, physical actions become internalised with the appearance and the development of imagery, which can be used in creative problem solving, according to Howard Gardner, Thomas Armstrong and Richard Roest.

Rhythmic intelligence (sound – music clever)

This potential is based on the recognition of sound, environmental sounds, tone and sensitivity to rhythm. This intelligence is turned on by resonance or vibration effects on the brain. This includes the human voice, different languages, dialects, accents, sounds from nature, musical instruments and percussion – 'the mind's ear'.
Before the invention of written language, societies had to devise ways to transmit knowledge from one generation to the next - music, beats, rhythm and the human voice represented an important way for people to commit information to memory.
Information was broken down into small chunks, chanted, set to musical phrases or into stories, and 'dream-time' stories.
Today, some indigenous cultures still transmit knowledge of the world, clan traditions and culture in this way – indigenous cultures of Australia, Borneo.
In the world of advertising too, attaching slogans, jingles to product advertising can make such promotion and product advertised more difficult to forget if the musical jingle is catchy.

Music serves as a stimulant whenever one needs a lift, as music acts as a conduit to the many linguistic and logical tasks one undertakes.
It represents a shift into a different domain and provides a way of opening up new perspectives according to Howard Gardner, Thomas Armstrong and Richard Roest.

Mathematical intelligence (logic – science clever)

This potential deals with inductive and deductive reasoning, often called scientific thinking. Along with Linguistic intelligence, Mathematical intelligence is also dominant in Western education systems.
It deals with numbers, recognition of abstract patterns. This intelligence is activated in situations requiring problem solving or meeting a new challenge, as well as situations requiring pattern recognition, according to Howard Gardner and Thomas Armstrong.
This intelligence stretches into the realms of purely conceptual thought, a form of thinking without imaging.
Children initially develop logical thought through direct sensory contact with concrete objects; building with blocks, manipulating toys, counting squares on pavements and in other ways learn about cause and effect, numbers and logical mathematical principles.
It is during the adolescent years that the logical mind enters into hypothetical deductive thinking mode, according to Jean Piaget.
This form of thought is fundamental to the Scientific Method; one establishes a hypothesis, one tests it, and then one modifies it in the light of results.
There is Computational thinking also – the ability to be numerate.
Before computers, mental arithmetic and numeracy were highly prized skills; extracting square roots, derive logarithms, figure compound interest and factoring large sums in short periods of time.
To some degree these accomplishments depended on a developed Linguistic intelligence, where schemas governing facts, algorithms and formulas were simply committed to memory with no understanding of the logic behind them.
In a broader sense, however, developed numeracy skills represent proficiency in using numbers and may enhance quality of life if used creatively and to good effect.

Interpersonal intelligence (social – people smart)

This potential operates primarily through person-to-person relationships and communication. This intelligence is activated by personal encounters; effective communication, working together with others for a common goal, as well as the ability to notice distinctions among persons, according to Howard Gardner. An ability to understand and read people in pairs or trios, people together as a closed unit, people exposing inner feelings through non-verbal cues, behaviours, to indicate that a gathering is at an end.

Interpersonal skills manifest themselves in five basic areas – listening skills, assertion skills, conflict resolution skills, collaborative skills and problem solving skills.
These skills all stimulate the listening skill, so important in language learning, as language is primarily about speech.
This intelligence fosters a 'We' culture, where connectedness and cooperation are the norm. This type of culture does not primarily think in terms of personal reward or advancement; its guiding principle is 'We all move together, and as One'.

Intrapersonal intelligence (self – self smart)

This potential relates to inner states of being and self-reflection.
This intelligence is triggered in situations that cause introspection.
It requires knowledge of internal aspects of self. Self-knowledge in terms of feelings, emotions and thinking processes, according to Richard Roest.
This intelligence pertains to self-understanding - over the past one hundred years ideas about the place of 'the self' has undergone many changes; its centre, the source of self-hood has changed location from the heart to the liver, to the pineal gland, and to some other part of the brain as the origin of consciousness.
The nature of self-consciousness has proved difficult to pin down; perhaps the dilemma is the object of the search is the same entity that is undertaking the search.
In more recent times, however, some cognitive psychologists have taken the view that the self is nothing more than a complex mental weave that allows one to organize information about the world more effectively. Another perspective suggests that there actually is a real self that might develop out of interaction with the environment in an empirical sense * and other factors such as early participants and their roles in one's life.

(* Intuitive perception of direct knowledge of the world, focusing on the dynamic relationships they form in space and time between the observer and the observed – Goethean Science)

The real self is the ultimate source of one's inner creativity, one's vitality and emotional well-being. Childhood appears to be an important time for the development of self; setting, participants, the provision of love and encouragement, respect and of course the participants as role models during this phase.
The inevitable stresses and strains of growing up create 'sub-selves', 'sub-personalities' that coexist with one's basic sense of self, for the most part remaining at an unconscious level only to surface when one is provoked, or when needs are not fulfilled.
An important facet in the development of positive self-image is the cultivation of an inner sense of competency, self-assuredness - an internalised feeling that one has an effect upon the world and that one is not a 'waste of space and time, 'invisible'.
In relation to young learners, it translates into a sense of accomplishment after and when meeting goals.

The development of self-mastery seems crucial in the formation of a solid sense of self; knowledge concerning motivation of oneself in order to optimize accomplishment. Mere setting of goals will not ensure they will be reached.
Goals must be achievable, desirable and measurable – setting short-term goals and organizing time effectively are key factors.
It is pertinent that one is aware of one's inner life; Howard Gardner suggests that an individual with a wide range of internal emotions can eventually identify and symbolise these and draw upon them as a means of understanding and managing one's behaviour.
Modern day students of inner-self often keep a journal to record aspects of inner experiences – dreams, daydreams, life-history material, inner dialogues with others and oneself.
Meditation also is a process of finding and recovering that which one had unknowingly lost, without knowing what it was or when, where exactly one lost it. [60]

There is one new intelligence since the original seven were determined by Howard Gardner and one only a *possible* intelligence at this point in time - **Naturalist intelligence** qualifying as the eighth intelligence, and *Existential intelligence* yet to be confirmed.

Naturalist intelligence (natural environment – nature smart)

This potential requires one to show expertise in the recognition, classification and relationships of the numerous species in the natural environment – flora and fauna.
This intelligence can be experienced in many ways, as is the case with other intelligences, and is commonly referred to as the one possessing a 'green thumb' in relation to flora and to those who are knowing about fauna, animal husbandry, and those who combine both in agro-forestry.
This intelligence is used when interacting with physical surroundings, which may develop a sense of cause and effect, a perception of patterns, an interpretation of interaction and behavior, an understanding of connections between living entities and objects.
Through the perceptual skills of the naturalist, data may be compared, characteristics may be categorised and meanings may be extracted to formulate and test hypotheses, the revelation of new patterns and interconnections among objects and/or living systems.
Natural environments can provide humanity with templates, visual tableaux of successful interactive Nature pattern displays.
These may enable humanity to better understand concepts in a new light, which may provide solutions to problematic issues.

[60] **7 Kinds of Smart – Dr. Thomas Armstrong, 1999.**


ONE SIZE FITS ALL! TRUST ME!


I'VE BEEN LEARNING A LOT, BUT I DO TERRIBLY ON TESTS.
THAT'S FUNNY. I DO GREAT ON TESTS, BUT I'm NOT LEARNING A THING.
CARTOONSTOCK .com
Search ID: shrn2174

Bill Mollison suggests that in microcosm and macrocosm humanity may learn from our natural world and that these lessons are perhaps the very best to adopt.
There are many lessons yet to learn, and some may be so obvious that one may be surprised for having failed to notice them before.
The immense store that is Nature is a primary reason for its preservation; mankind can never afford to squander and take for granted such a fine 'Teacher' that operates without cost or bureaucratic involvement. By applying the wisdom of the eye, engaging a linkage discipline incorporating Multiple Intelligences, Howard Gardner's comprehensive mental dispositions, and dialectic thinking, it may be possible to create an all-encompassing schema that ***must*** be able to :-

- adapt to different cultural settings,
- accept progressive contributions from any sphere,
- be modified in the light of experience.

Such schema would not be dissimilar to permaculture's concept Method of Design, a patterning synopsis using a netting grid to describe and portray a beneficial assembly of all the components in their proper relationships expressed in a designed **Learner Profile,** a designed imagery concept.
A concept simply exemplified by Permaculture's Methods of Design – Products and Behaviours of a Hen [61]- to provide understanding and clarification of a learner's understanding of self, options in relation to pathways and providing the learner with a gateway to educational opportunities. This would answer the third part * of Howard Gardner's threefold cornerstone pursuit in making a case for Multiple Intelligences.

Existential intelligence

At this point in time, Existential intelligence is only a possible ninth intelligence according to Howard Gardner, because it is not clear whether this potential has an association with the brain – one of the eight criteria he set at the outset.
This intelligence concerns itself with ultimate life issues such as life itself, the why and what for.

[61] **Permaculture: A Designer's Manual – Bill Mollison, 1988.**

He defines the core abilities as:-

- being able to position oneself within the universe – the infinite no less than the infinitesimal,
- being able to locate oneself in relation to the most existential features of the human conditions,
- being able to explain the meaning of death and the kismet of the physical and psychological worlds – profound experiences, love for another human being, the attainment of Mahayana.

Howard Gardner does not hypothesise about answers to these questions and he does not believe that some may have more of this potential because they may have found nirvana as opposed to those who have not.
He does suggest, however, that there the brain may act as a conductor for existential concerns; this does not necessarily imply that the brain causes existential reflections.

In relation to the search for more intelligences, he advocates that the nature and breadth of intelligences has as yet not been established, nor have the number of intelligences been set as there is not and never can be a fixed, single register of human potentials, nor will the search ever be completed.
Apart from the eighth and possibly a ninth intelligence, there are critics of his theory who argue that there were only seven intelligences featured originally. In 1983, the seven intelligences formed the foundation of his Multiple Intelligences theory, because of prerequisites and the eight criteria he set. In order to appreciate and understand why only seven original intelligences were formulated, an examination of the eight criteria is necessary:- [62] [63]

Potential isolation due to brain damage

Brain injuries are often selective with respect to the intelligences. An individual could have a lesion in one area of the brain which might hinder a particular intelligence while leaving other cognitive faculties untouched.

The existence of idiots, savants, prodigies and other exceptional individuals

It is possible to study intelligences in isolation by examining the lives of exceptional individuals who have developed an individual potential to a high degree.

This demonstrates that intelligences can develop automatically and that one or more can develop to an extraordinary level while others may lie dormant by comparison.

[62] **Frames of Mind – Professor Howard Gardner, 1983.**
[63] **7 Kinds of Smart – Dr. Thomas Gardner, 1999.**

An identifiable core operation or set of operations

Each of the intelligences in his theory must have a central medium for taking in information from the environment be able to process and operate it in the same fashion as a computer would with data.

A distinctive history, along with a definable set of expert end-state performances

Integrated developmental aspects into intelligences specify that roles within each of the intelligences must have a separate arrangement from learner to master.

An evolutionary history and evolutionary plausibility

In order for an intelligence to qualify to the list compiled, there must be evidence for it in the prehistoric life of humanity, even in earlier phases of evolution in other species. Howard Gardner suggests that the intelligences extend back before civilization sending roots into the nucleus, 'Zone 0', of living systems.

Support from experimental psychological tasks

Intelligences can be identified through psychological experiments including mnemonics attention, perception, transfer or the lack thereof. Thomas Armstrong, however, is of the view that this criteria is less clear than the others and he awaits proof that this criteria will prove to be a solid indicator to the theory of Multiple Intelligences.

Support from psychometric findings

Forms of standard measurement systems, such as IQ testing, can be used to support the existence of Multiple Intelligences according Howard Gardner. An indicator, using this type of measurement, is that not infrequently drastically different and contrasting sub-test results are produced – sub-tests such as words / vocabulary examination, numbers / arithmetic examination and assembled images / pictures examination.

Susceptibility to encoding in a symbol system

Intelligence is determined, whether an individual symbolises or not, in the ability to symbolise and is a key faculty that differentiates the human from other living entities. The ability to express thought through sound, gesture or a mark is an achievement of note.

It is through sound and symbols that thoughts and feelings can be expressed in a wide variety of languages through all of the intelligences in which humanity has designated to

convey its internal world to others. This includes Naturalist intelligence and the possible ninth intelligence – Existential - through patterns, totems, diverse religious symbols and myths of the world's cultures.

There have been many different types of intelligences put forward such as humour, creativity, spirituality, morality, wisdom, sexuality, intuition, extrasensory perception, common sense, sense of smell according to Thomas Armstrong; however, Howard Gardner advocates the search will never end and that there can be no fixed schedule of intelligences.

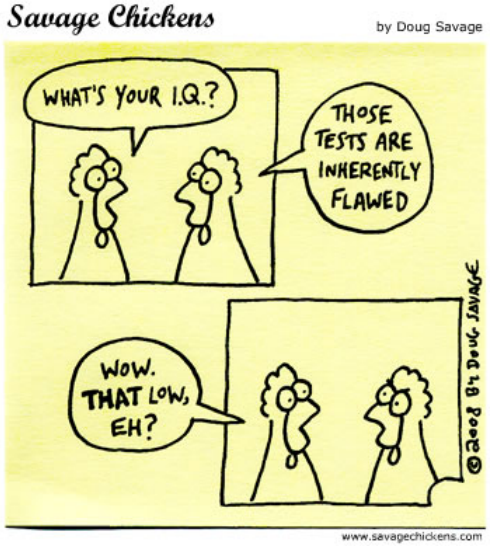
In order to access underlying ideas and so progress Multiple Intelligences theory – Ways of Knowing - it may be case of considering an alternative philosophical approach, according to Richard Roest.

An approach of Dialectic Thinking; it represents a way of thinking that helps one to explore and understand the world one lives in.

It may help one achieve a more holistic understanding of the many processes in which humans participate.

Perhaps observation and thinking in this fashion might engender an alternative viewpoint to Ways of Knowing, as Dialectic Thinking is based on the experience of fundamental ***unity with*** Nature, and may lead the observer to see beyond the paradigms of the conventional scientific Ways of Knowing which are based on the assumption of fundamental ***separation from*** Nature.

The latter is based on Rationalism - the opposite to Dialectic Thinking - and appears to be moving beyond its scope of its limitations in providing answers to problematic or vexing issues.



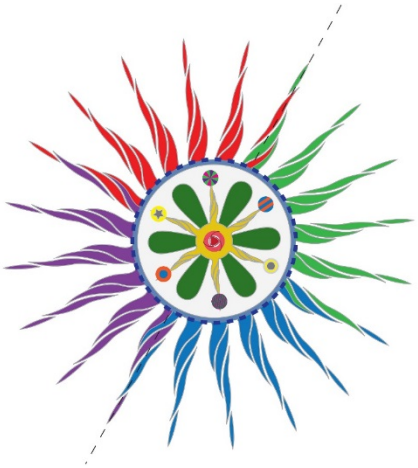
The Intelligences

Linguistic intelligence

Linguistic intelligence personalised

Linguistic intelligence and associated faculties

Linguistic intelligence and modes of faculty development



Linguistic intelligence personalised

- I like books, I like reading,
- I can see and hear words in my head,
- I get a lot out of listening to a debate, to the radio, or from a recording,
- I enjoy word games such as Scrabble, Boggle and Anagram,
- I enjoy entertaining myself or others with tongue twisters, puns, spoonerisms, idioms and oxymorons,
- Other people sometimes have to stop and ask me to explain the meaning of words I use when writing and speaking,
- English, other languages, social studies and history were easier for me than mathematics and science,
- When I drive or ride, I also pay attention to words written on signs and billboards,
- My conversations include references to things that I have read or heard,
- I have written things that I am proud of, or that have earnt me recognition from others,
- When I do an assignment, I would rather have oral instructions as well as written ones,
- I would rather read the book than see the movie.

Linguistic intelligence and associated faculties

- Understanding the order and meaning of words,
- Ability to convince someone of a course of action,
- Explaining, teaching and learning,
- Humour with language,
- Memory and recall.

Linguistic intelligence and modes of faculty development

- Learn five new words every week,
- Circle unfamiliar words and look them up in a dictionary / thesaurus to find the synonym / antonym,
- Buy a thesaurus, rhyming dictionary, book of word-origins and a style manual,
- Join a book club, or frequent second hand book shops,
- Join a great books seminar,
- Join a library – if I don't like the book selected after reading some twenty pages, I exchange it for another.

"Trying to think of a word for two weeks? How about 'fortnight'?"

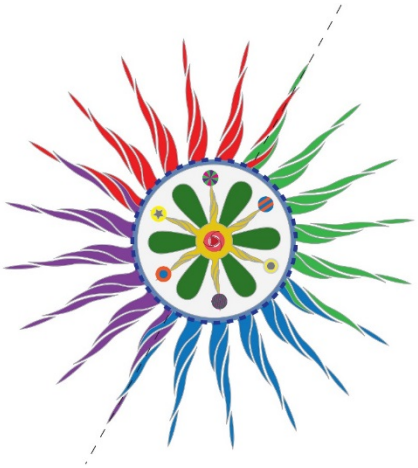
The Intelligences

Spatial intelligence

Spatial intelligence personalised

Spatial intelligence and associated faculties

Spatial intelligence and modes of faculty development



Spatial intelligence personalised

- I often see clear visual pictures in my head when I close my eyes,
- I am sensitive to colour,
- I like using a camera to capture an interesting image,
- I enjoy doing jigsaw puzzles and other puzzle games,
- I have dreams at night,
- I can generally find my way around unfamiliar territory with good directions,
- I like to draw or doodle and scribble when thinking or contemplating,
- Geometry was easier for me than algebra,
- My conversations include references to things that I have read or heard,
- I can imagine how something might appear if it were looked upon in a 'bird's-eye' view,
- I can imagine the end results of renovations,
- I prefer looking at reading material with illustrations and preferably large print.

Spatial intelligence and associated faculties

- Active imagination,
- Forming mental pictures,
- Finding one's way in space,
- Image manipulation ability,
- Graphics representation ability,
- Recognising relationships of objects,
- Accurate perception from different angles.

Spatial intelligence and modes of faculty development

- Create a picture collage of favourite images from magazines and brochures,
- Learn orientation and cataloguing skills for wilderness walking,
- Take a class in drawing, painting or some other visual art at a local college,
- Purchase a picture dictionary,
- Make three-dimensional models or drawings of ideas you have,
- Purchase 'How-to' books and magazines on specific areas of interest.

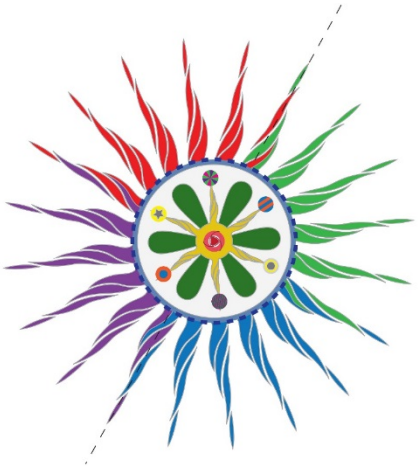
The Intelligences

Kinaesthetic intelligence

Kinaesthetic intelligence personalised

Kinaesthetic intelligence and associated faculties

Kinaesthetic intelligence and modes of faculty development



Kinaestetic intelligence personalised

- I engage in at least one sport or physical activity,
- I find it difficult to sit still for any length of time,
- I like working with my hands and at concrete activities – sewing, weaving, carving carpentry, building,
- My best ideas often come to me when I am moving about, when I am engaged in physical activity,
- I like to spend time outdoors,
- I frequently use hand gestures or body language when conversing with someone,
- I like to touch, to feel things in order to learn more about them,
- I enjoy daredevil amusement, thrilling physical experiences.

Kinaesthetic intelligence and associated faculties

- Control of pre-programmed and voluntary movement,
- Awareness of body motion,
- Mind and body interaction,
- Mimetic ability,
- Good body functioning and coordination.

Kinaesthetic intelligence and modes of faculty development

- Stand on one foot and see how long you can keep this up as an exercise – if you can, close your eyes and balance,
- Throw a crunched up piece of paper in a waste paper basket some ten to twelve feet away - coordination,
- Do a cartwheel and be sure to keep your body straight- coordination,
- Build a multi storey construction using cards and make it as high as you can - dexterity,
- Try a weekend backpacking, a trip walking at least five kilometres a day - endurance,
- Communicate with someone the concept of 'in quarantine', using your body – expressiveness, mimetic ability.

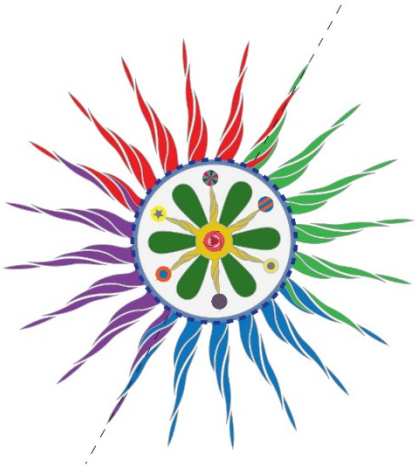
The Intelligences

Rhythmic intelligence

Rhythmic intelligence personalised

Rhythmic intelligence and associated faculties

Rhythmic intelligence and modes of faculty development



Rhythmic intelligence personalised

- I have a good voice and I like to sing,
- I can tell when a musical note is off-key,
- I like to listen to music or have music in the background, even when I study,
- My life would be rather empty without music,
- I sometimes catch myself walking around with a tune running through my head,
- I can easily keep time to a piece of music with a simple percussion instrument,
- I know the beat to many different songs, musical pieces, and can recognize same at once,
- If I hear a musical selection a couple of times and I like the rhythm, I am usually able to sing or hum it,
- I often make tapping noises or hum melodies,
- My mood tends to dictate what music I listen to.

Rhythmic intelligence and associated faculties

- Appreciation for the structure of music,
- A mind schema for hearing music / sound,
- Sensitivity to sounds,
- Recognition, creation and reproduction of rhythm and melody,
- Sensing characteristic qualities of tone.

Rhythmic intelligence and modes of faculty development

- Attend a concert or musical, live on stage - see what you think and how you feel,
- Sing or hum in the shower or when commuting and tap your foot to the beat of the song,
- Spend some time every week listening to music of all kinds,
- Listen for naturally occurring melodies, bird calls, dishwasher noise, signature noise of types of car, motor bikes or different aircraft flying over,
- Try to sing all your communications with family or friends as an exercise,
- Regularly put on background music when studying and see if your memory of matter studied improves.

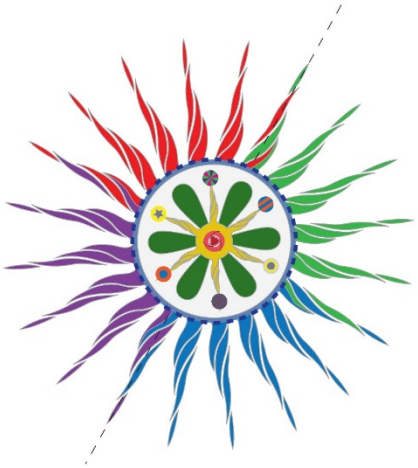
The Intelligences

Mathematical / Logical intelligence

Mathematical / Logical intelligence personalised

Mathematical / Logical intelligence and associated faculties

Mathematical / Logical intelligence and modes of faculty development



Mathematical / Logical intelligence personalised

- I can easily work with numbers in my head,
- Mathematics and science subjects are / were my favourite subjects,
- I enjoy playing games or solving brain teasing tasks,
- I like setting up 'what if' games and experiments,
- I like to search for patterns, connections, regularities or logical sequences in things,
- I am interested in scientific development and development generally,
- I believe that everything has an explanation,
- I sometimes think in clear abstract, wordless, imageless concepts,
- I like the challenge of finding 'backdoor' solutions to problems,
- I like finding logical flaws in things that people say or do,
- I feel happier when something has been measured, tested and categorised in some way,

Mathematical / Logical intelligence and associated faculties

- Abstract pattern recognition,
- Discerning relationships and seeing connections,
- Performing calculations,
- Scientific, logical reasoning.

Mathematical / Logical intelligence and modes of faculty development

- Try to read the business section of the newspaper – economic and financial concepts,
- Read about science discoveries, read 'Tell me Why' books and discover how things work,
- Watch television featuring science discoveries and concepts,
- Practice calculating simple arithmetical problems in your head,
- Use blocks, beans, matchsticks, or other concrete materials in learning new mathematical concepts,
- Confront rather than shy away from arithmetical problems you encounter every day – balancing your cheque account or determining loan rates.

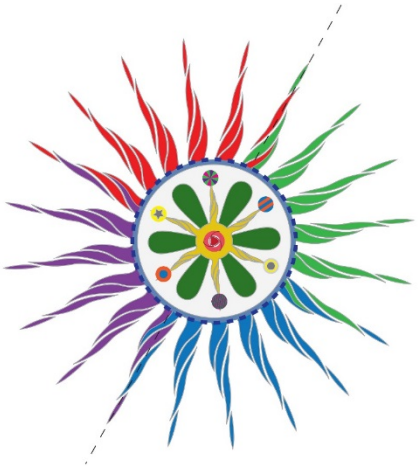
The Intelligences

Interpersonal intelligence

Interpersonal intelligence personalised

Interpersonal intelligence and associated faculties

Interpersonal intelligence and modes of faculty development



Interpersonal intelligence personalised

- I am the sort of person that people tend to come to for advice or a chat,
- I prefer a group sport or activity to solo-activity,
- If I have a dilemma, I am inclined to seek out another person for help,
- I have at least three friends,
- I favour social pastimes over individual recreations such as computer games,
- I like to tell another person or people about things I know how to do and that interest me,
- I consider myself a leader – others have called me that,
- I do not feel uncomfortable in a crowd,
- I like to get involved in social activities – I like to contribute,
- I would rather spend time at a party or social gathering than stay at home by myself,

Interpersonal intelligence and associated faculties

- Effective verbal / non-verbal communication,
- Ability to discern another's underlying intentions / behaviour,
- Working co-operatively as a group / team member,
- Ability to pass over into the perspective of another,
- Creating and maintaining synergy and focus in a group.

Interpersonal intelligence and modes of faculty development

- Spend fifteen minutes every day just listening to spouse or friends,
- Take a leadership role in the group you are currently involved with at school, the community, or at work.
- Collaborate with a person or persons on a project of mutual interest,
- Spend some twenty minutes every day observing people interacting in a public place or a television programme,
- Learn the art of proper behavior by reading a book on etiquette – you may find rules are different for other countries and cultures,
- Join a volunteer or service oriented group – give up one or two days a month.

**"Yes, I think I have good people skills.
What kind of idiot question is that?"**

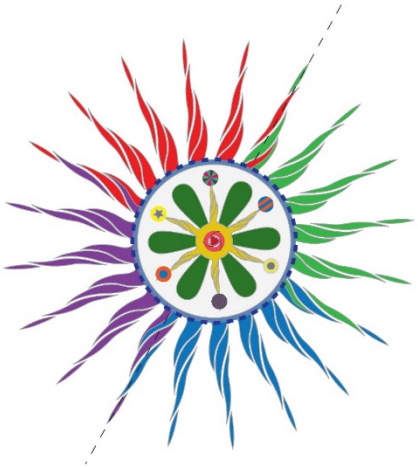
The Intelligences

Intrapersonal intelligence

Intrapersonal intelligence personalised

Intrapersonal intelligence and associated faculties

Intrapersonal intelligence and modes of faculty development



Intrapersonal intelligence personalised

- I regularly spend time alone meditating, studying, thinking about important issues to me – I tend to think about thinking itself,
- I have attended counselling sessions / personal growth seminars,
- I am able to respond to setbacks with resilience – a big knock takes me longer,
- I have special interests that I like to keep to myself – I can be somewhat secretive,
- I have important goals that I think about on a regular basis,
- I have a realistic view of my strengths and weaknesses, borne out by feedback from other sources,
- I would prefer a weekend alone in a cabin in the wild, rather than at a fancy hotel in the city with a lot of people around,
- I consider myself to be strong willed and independent minded,
- I am or would prefer to be self-employed or a consultant and have thought at least seriously about starting, re-starting my career on that footing.

Intrapersonal intelligence and associated faculties

- Concentration of the mind,
- Mindfulness,
- Meta-cognition – the ability to think about thinking itself,
- Awareness and expression of different feelings,
- Transpersonal sense of self,
- High order thinking and reasoning.

Intrapersonal intelligence and modes of faculty development

- Keep a journal,
- Take ten minutes every day to mentally review your various insights and feelings during the day – the best and the worst part of your day and why,
- Develop an interest or hobby that may be a little different from the norm,
- Read self-help books,
- Study maps of self – Western and Eastern philosophies as they differ markedly,
- Do something you find pleasurable for yourself every day.

"I'd have done better on the intelligence test, but it was biased toward intelligent people."

Multiple Intelligences

Teaching for Multiple Intelligences

Linguistic intelligence

Spatial intelligence

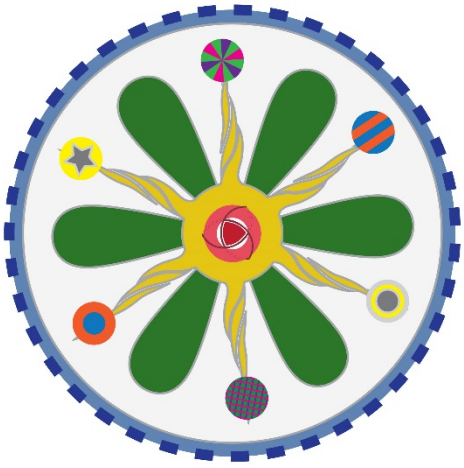
Kinaesthetic intelligence

Rhythmic intelligence

Mathematical / Logical intelligence

Interpersonal intelligence

Intrapersonal intelligence



Linguistic intelligence

These learners love to read, write and tell stories. They tend to memorise places and dates, names and trivia quite easily. They tend to have an ability to repeat back everything one tells them. Creativity should be encouraged with this type of learner, as should participation in spelling sessions and creative writing assignments.

Spatial intelligence

These learners tend to visualise things – they tend to spend a fair amount of time dreaming, tend to like watching films and have a tendency to stray away from reality at times. When they are down, asking them to draw a picture could reveal more than a verbal enquiry might. This learner should be allowed to develop the senses and natural artistic abilities. Usually, this learner has an eye for colour and pictures. Allow this person to play educational computer games such as Civilisation, Oregon, or just to dream a hit as this learner could be hard at work thing about a particular matter but has not yet formalized his / her thoughts. This person may also be artistic and may have a problem expressing it; therefore, any type of creative activity should be encouraged.

Kinaestetic / Tactile intelligence

These learners appear to always be on the move, fidgety, and active. They constantly walk around, need to touch everything and use body language to convey their feelings. They would much rather engage in activity, sports than sit down and read a book. This learner needs active education, as this person is capable of doing more than just one thing at a time. He / she is the type of learner that sometimes attracts the label ADHS (Attention Deficit Hyperactivity Disorder) many of these learners are misdiagnosed and also misunderstood. Allow this person to use all extra energy to learn. Incorporate a sense of development and interaction allowing for space during lessons. Often this type of learner will take well to the arts and particularly music tends to develop into a sense of concentration and sustained commitment to see a task finished. Lesson times should be kept under control and should be varied to have the learner maintain interest. Interdisciplinary lessons are usually successful with this type of learner.

Rhythmic intelligence

These learners always seem to be humming a tune or need music to work with or study by. This person tends to notice details, pitches, rhythms that may escape other listeners. They are excellent at keeping time, keeping a beat, and turning the abstract into concrete. They best learn through rhythm. Incorporate music into as many lessons as possible, not only for this particular intelligence, but also because music is a good 'nurse maid' to the other intelligences.

Mathematical / Logical intelligence

These learners are mathematically, numerically inclined. This person tends to enjoy solving problems, riddles. They are a bit like 'Dr. Spock' of Star Trek, the television programme, and tend to be logical, straight forward, no nonsense thinkers. They tend to ask a lot of questions on how things are at work, how things relate, or why things are there. As young children, their favourite toys were probably building blocks, Meccano and puzzles. Patience is required, particularly with language studies – they learn best by categorising, classifying and working with patterns, relationships. If asked to make up a chart or to show relationships between different items, this learner tends to not only come up with an answer, but will explain the process and development stages of the relationship.

Interpersonal intelligence

These learners are 'social butterflies'. They adapt easily into any situation, tend to have many friends and are excellent leaders. They tend to be patient, understanding and empathetic – a must is to have one of these learners in a pairing arrangement in a group of six to promote interaction and collaboration. These learners tend to make good leaders because of their ability to defuse conflict in mediation. They are often referred to as the 'peacemaker' or the 'socialite' in the classroom. Allow these learners to be with others who are different, as they tend to do better in a group situation- in a group environment, they tend to compare, share, relate and 'interview' others.

Intrapersonal intelligence

These learners tend to be headstrong, firm willed individuals, who tend to work best alone. They tend to pursue their interests and have a deep understanding of themselves. They tend to pride themselves on being independent and original. They tend to stand out in a crowd without trying. They do best in self-paced instruction, individualised projects and prefer to work alone. These individuals have a tendency to be somewhat secretive about original thought. Allow them space and should be encouraged to develop socialization skills and group work. Situations should be created for them to socialise - Karaoke for instance, a particularly popular pastime in Asia and good language practice too.

A framework to teach for Essential Learning Styles

Visual / Auditory / Kinaestetic

Visual	Auditory	Kinaesthetic
Pictures	Discussion	'Hands-on' work
Charts	Reading aloud	Touch
Maps	Verbal instruction	Craft
Graphs	Dictation	Art
Colour	Storytelling	Creating
DVD	Info-gap-tasks	Deconstructing
Flashcards	Pair / group work	Planning