

LIFE SKILLS: CONCERNS, NEEDS, ATTRIBUTIONS, AND
SKILL LEVELS OF ADOLESCENTS*

Glen Evans
University of Queensland

Millicent Poole
Macquarie University

While a number of studies exist which examine the perceived attitudes and needs of adolescents in transition to adulthood, few of these studies examine the knowledge and skills that adolescents bring to their perceived future life roles. For example, in her longitudinal study of adolescents, Poole (1982) reports a perceived need by adolescents for knowledge and skills at major transitional stages (e.g. school leaving decisions, job choice, marriage and family formation) but provides no framework for skill learning or evaluation.

Our research is concerned with extending such descriptive knowledge of adolescents' concerns and needs to an analysis of the knowledge and skills they bring to these concerns, the sources to which they attribute their knowledge and skills, and the relationships between learning processes and learning settings.

Skills range from automatic response to deliberative analysis and reflection, e.g. "learning to drive", "I can now react in a better manner to their conversation". Needs range from peripheral to central, survival to self actualization, e.g. "being treated fairly", "I try to achieve the best in everything I do". Attributions range from external sources, such as school, to internal, such as perceiving oneself to construct skills from experience, e.g. "I've learned from personal criticism", or "by my own efforts and ideas".

The research is embedded within a generalized learning model which incorporates five major dimensions: learning and behavioural context, performance expectations, learner characteristics, learning processes, and behavioural characteristics. This generalized model is applied to the learning of life skills. Data from a pilot study are used to clarify and validate points of the life skills learning model, as a basis for developing programs on skills acquisition.

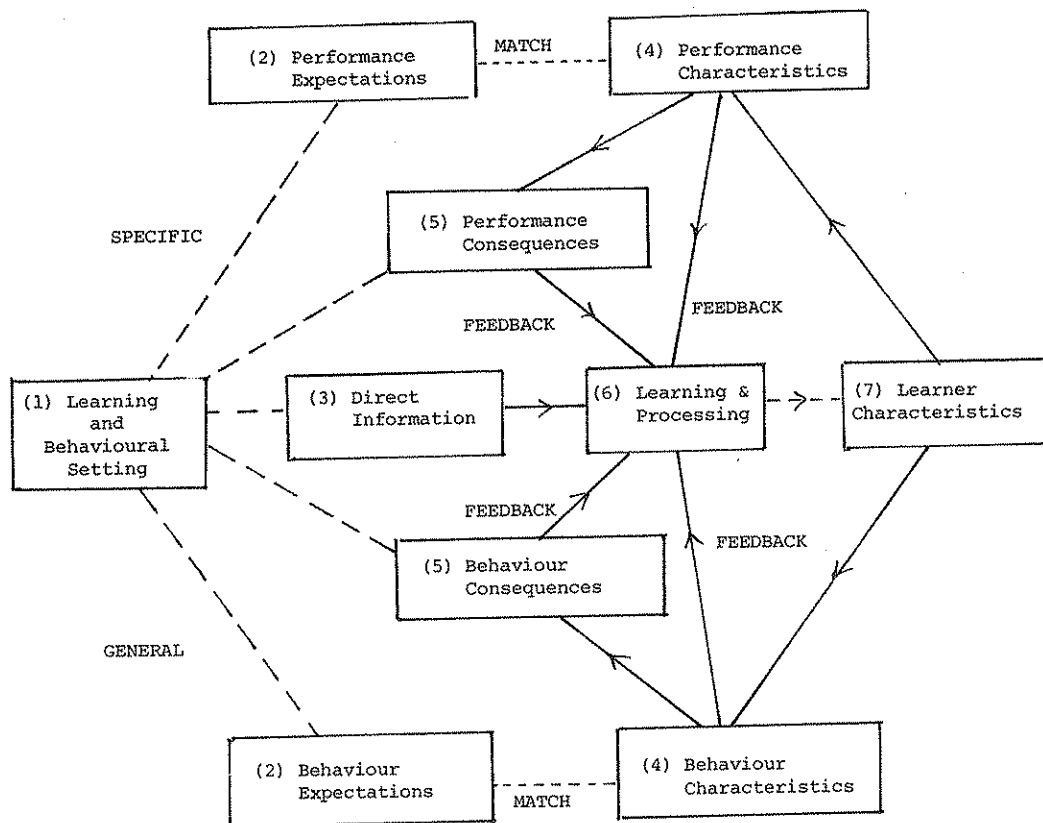
A GENERAL MODEL FOR LEARNING IN CONTEXT

Brown (1982), building on earlier work by herself and others, has proposed a "tetrahedral" model for studying learning. The model considers four factors, and the interactions between them, that comprise the "learner-in-context," viz (1) the learner's activity, (2) the characteristics of the learner; (3) the nature of the materials to be learned; and (4) the criterial task. Ford (1981) has proposed a very similar set of interacting variables in the broader context of metacognition. Implicit in both these models is the need for the learner to be aware of each of the aspects involved. Neither model, however, includes the physical, social, and instructional dimensions of the learning context.

We have, therefore, devised a more comprehensive generalized model of learning-in-context which includes four sets of factors: (1) the learning and behavioural context, which includes physical and social structure and interactions, behavioural expectations, and instruction (performance expectation, feedback, knowledge transmission, learning opportunities); (2) performance expectations (domain and task demands); (3) learner characteristics, including processing capacity, knowledge base, performance skills, social skills, affective traits and states, learning strategies; and (4) behavioural characteristics (performance characteristics and general behaviour characteristics). The essential aspects of the model are presented diagrammatically in Figure 1.

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FIGURE 1. A GENERAL MODEL FOR LEARNING IN CONTEXT



The model represented in Figure 1 is concerned with person, environment, and behaviour, and with the processes which continually relate these three aspects. The bottom section of the diagram is concerned with behaviour in general, while the top section is concerned with behaviour specifically fostered as a means to learning in an educational setting.

The setting, (1) is regarded as having both physical and social aspects, people's behaviours and their consequences comprising part of the setting. The setting gives rise to expectations of behaviour or performance (2). These may arise from the teacher, in the case of a classroom, from the whole group, be suggested by the setting, or be imported by a particular person from some other or some wider setting. In any case, the person is assumed to construct expectations in response to the setting, and to recognize, accept, modify, or reject those arising in the setting. Aspects of the setting also provide direct information (3) which may be used by the participants to change their knowledge base or other characteristics. Direct information may take the form of cues on group climate or interpersonal warmth or tension, of reinforcement and punishment, verbal information, or other sensory information.

Expectations, once perceived or constructed, elicit a performance or behaviour (4). This behaviour may be overt, as when a student in class answers a question or asks a question, or covert, as when the student thinks through the answer to a question but does not verbalize it. The match between expectation and performance serves two functions. First, the degree of match striven for serves to define the nature of the goal that the learner sets, that is, the kind of performance to be aimed at. Second, the match achieved provides feedback on the extent to which the person has met his/her goals.

Feedback can arise from two sources. First it may be provided by the person's assessment of the match between performance and expectation, e.g. the person wished to remember another person's name, but could not do so. In many cases, the assessment is made during the performance rather than on its completion. Second, the feedback may arise from consequences of behaviour (5), as in conversation when a gambit succeeds or fails in rousing interest, or when a teacher evaluates a performance either positively or negatively.

Feedback, in turn, is posited to give rise to three kinds of effect. First it provides information to the person about him or herself. It may simply provide information about the person's performance - good or bad, effective or not - or it may cause the person further to firm or revise some feature of self-concept, i.e. feedback helps the person to define him or herself. Second, feedback indicates the nature of new learning tasks. Failure to solve a problem by one method may simply indicate the need to try another approach. Third, feedback may be used to define the expectation or the setting, for example, as trivial or as unreasonable.

Performances or behaviours not only provide feedback to the performer, they also alter the learning setting for others. They may, for example, arouse emotional responses, provide direct information, or set new expectations.

Learning processes (6) are those aspects of behaviour which the person devotes to changing self. In the model being formulated here learning processes contribute to and respond to feedback from goal directed behaviour, and respond to direct information.

Learning processes are just one type of learner characteristic (7) which may affect learning. Others include the person's knowledge base, his or her relationship with other members of the setting, processing capacity, beliefs and feelings about self, affective traits and states such as interest, confidence, anxiety, motivation, currently held goals, social skills, and skills related to the particular performance. These other characteristics may in turn interact with learning processes. One type of interaction, as Brown (1982) points out, is that a person may fail to use knowledge or skills that he or she has available.

Social interaction and other life role behaviours may be conceived as the expression of skills developed from structures of inter-personal knowledge, perceptions, and emotions, through using environmental information, feedback, and learning strategies. There are two important development aspects of intellectual skill learning. One concerns the level or quality of the skill performance, which is discussed below, and the other the learning processes by which this quality is improved. Anderson (1982) views skill learning as the progressive proceduralization of propositional or declarative knowledge, involving both problem solving and automatization. Skill acquisition may, however, develop without specific propositional knowledge about the skill, but by a process of discovery through problem-solving. This is the view taken by Piaget (e.g. 1978), and recently by Fischer (1980), who has posited several specific transformation rules for development of skills, and by Scandura (1981), who posits, that, if a person fails to solve a problem by available specific procedures or "rules", he or she can employ progressively higher order rules that select, modify, or combine existing lower order rules.

APPLYING THE GENERAL MODEL TO THE LEARNING OF LIFE SKILLS

The Learning Model represented in Figure 1 provides a comprehensive framework for the description and analysis of learning in context. Applied to the learning of life role skills, it suggests a variety of applications.

1. The model suggests variables for descriptive and normative studies of adolescents' life skills. These include individual differences and commonalities in the common kinds of performance or behavioural expectations detected by adolescents in different settings and the degree to which they accept these expectations or modify them. Other variables are the performance characteristics of adolescents under various conditions; the learning processes commonly used by adolescents in gaining various kinds of life skills; the levels of match discerned between performance and accepted expectation or aspiration; the relationships between each of the above and social and psychological variables; and

the ways in which adolescents use feedback in social situations to regulate behaviour. There is also a need to be able to distinguish those adolescents who function well in various settings from those who do not, and to explain the differences between the two groups.

Of these variables, several have been well studied. Piper's (1977) study on the essential learnings about society may be considered as establishing consensus on major expectations for adolescents. These include how to investigate, understand, and participate in the social process. His later study on curriculum style and social learning (Piper, 1979) also showed that both teachers and students agreed that the ideal curriculum should stress factual knowledge of everyday life, inquiry and decision making skills, developing self awareness and self realization, social and group membership skills, and, to a lesser extent, knowledge of contemporary society, developing understandings of community, and developing democratic and humanitarian values. Collins and Hughes (1979), in surveying students, parents, and teachers in New South Wales found goals of "personal autonomy" and "practical skills" near to the basics at the top of the list of importance for all groups, with "social awareness" ahead of academic values.

If the broad expectations discovered in studies like these have behavioural reality, they should offer a way of classifying expectations by adolescents in many learning settings. On many of the other aspects suggested by the model, however, there are fewer data. We know little of the skill levels commonly attained by adolescents in life roles, of the ways in which expectations are evaluated by adolescents, of the use of feedback, or of the learning processes used in life skill learning.

2. The model suggests the need for exploring methods of assessment of skills for detecting and setting expectations for behaviour; performance levels; learner characteristics such as processing capacity in functional life role settings; the kinds of constructs which adolescents use to conceptualize social, vocational, and leisure phenomena; and learning skills used in life settings. It also points up the need for measurement of corresponding variables in the setting, such as clarity of expectation and feedback.

Such methods are essential for a broader understanding of life skill learning. The main methods so far developed are based on self report in interview and questionnaire. It may be possible to improve on this type of assessment in some aspects, particularly in the measurement of skill. A particular level of performance on a particular occasion can be regarded as depending on underlying competence in the skill (cf. Flavel and Wohlwill, 1969) and personal states such as motivation, distraction, health, or recent practice, and environmental conditions, such as opportunity to perform, time available, interest of other members of the group or need to perform. Several systems have been evolved for the assessment of intellectual skill levels, e.g. Biggs and Collis (1982), Fischer (1980), Halford and Wilson (1980), Case (1978). That of Biggs and Collis (1982) is based on the structure of written responses to questions. Their Structure of Observed Learning Outcomes (SOLO) Taxonomy provides a method of analysing responses on the basis of the amount of information in the stimulus which has been utilized, the relationships perceived between items of information, and the use of integrative themes or concepts. Fischer's (1980) scheme for the assessment of levels of performance depends on the number and kinds of variables, and the relationships between them, over which the person has control in the performance.

3. The model suggests a means of analysing the kinds of setting in which life skills are typically learnt. The particular foci of such analyses might be the way in which expectations are developed; the opportunities offered for performance and for assessment of one's own performance; and the ways in which the setting offers feedback and encourages its use for self analysis and reflective learning.

4. The model suggests some principles for intervention studies aimed at the better development of life skills in particular groups of adolescents. Two possible kinds of intervention are the use of films which present a problematic situation, followed by group discussion, and simulated decision making with either groups or individuals. Such settings may be analysed in terms of the criteria mentioned above.

A PILOT STUDY

The model proposed suggests many research approaches. What follows is an account of a pilot study designed to explore methods of assessing some of the variables proposed. The study was conducted in two Queensland high schools with Year 11 students (N = 192, 90 girls, 102 boys, 144 metropolitan, 48 non-metropolitan). 150 of the students undertook a short preliminary questionnaire "About Myself" which provided information on age, sex, whether they were in a transition type course, job preferences and expectations at age 23, and immediate educational or job expectations. They were also asked to name the five most important concerns in life for people of their age.

108 of the students watched a film 'B.Y.O.' which presented a problematic situation concerned with the use of alcohol by adolescents. These students subsequently answered six questions related to identifying the problem and suggesting strategies for tackling varying aspects of the problem presented. Responses were analysed in terms of substance (content) and skills levels derived from the Biggs and Collis (1982) SOLO taxonomy. This taxonomy postulates a hierarchical skill level dependent on the identification and interrelationship of components. In increasing order of complexity, the taxonomy includes the following levels: 1. pre-structural, 2. uni-structural, 3. multi-structural, 4. relational, and 5. extended abstract. Each of these levels includes the others below it and each can be referred to the relevant items or dimensions of information considered.

87 of the students each undertook structured essays on one of five topics (jobs, leisure, opposite sex, family life, and everyday life) which sought their responses to six questions: perceived importance of the topic as a life area; important concerns for them in that area; perceived knowledge and skills attained; perceived needs; their attributions of skill and knowledge; and provision of opportunities for the acquisition of knowledge and skills in that life skill sector. In addition, five of these essay responses could be analysed in terms of the SOLO taxonomy for level of skill in the written response. Twenty-nine of the students undertook both the film problem task and one of the essays.

The responses to the questions on concerns were sorted and categorized by three researchers, using the salience of responses, with attention to the categories developed by Piper (1977, 1979). Piper's earlier categories of investigation and understanding seemed, with these data, to be more appropriately included under a general category of personal development and self management. "Participation in the social process", on the other hand, became divided into social relationships with friends, family, opposite sex, and others, and communication processes and interpersonal understanding. There was a further category of everyday life activities and skills related to leisure, health, home, money and security, job related skills, and future education, and a category concerned with social values and ethics. These categories thus represent a good match with those of Piper's perceived to be most important by his sample. There was, for two of the questions, need for two further categories of knowledge sources - one reflecting general experience, the other more formal sources, particularly those associated with the school. These various categories were developed as a classification scheme, presented in Table 1.

The results in Table 2 indicate the frequencies of mention of these various categories. Column 1 summarizes the responses from 150 students on the five most important concerns to adolescents, indicating the salient expectations they perceive in different settings. For this question only, "relationships" and "communication" were not separated. Column 2 gives a summarization of frequencies over all five essay topics, also expressed as percentages of the number of respondents. There were considerable differences between topics on the mention of various concerns, indicating that one must be cautious in proposing general skill types as being important, in the absence of knowledge of the domain.

Overall, "relationships", "communication", and "leisure" were seen to be of great importance in general, while personal development was seen to be important in the areas of everyday life, jobs, and leisure. A similar pattern held for attained knowledge and skills, for expressed needs, and for attributed sources. While some students saw "jobs" as an area where they were not satisfied with their skills and had learning needs, few expressed a desire for further learning opportunities. Over half of the students attributed knowledge

TABLE 1
CLASSIFICATION OF CONCERNS & KNOWLEDGE SOURCES

1.0 <u>Relationships/Social Interaction</u>	4.0 <u>Personal Development/ Self Management</u>	6.0 <u>General Experience and Learning</u>
1.1 People, others (in general)	4.1 Use of time	6.1 Practice
1.2 Co-workers	4.2 Finding interests and enjoyment in activities	6.2 Experience/trial and error
1.3 Peers/fellow students	4.3 Self motivation, responsibility, autonomy	6.3 Incidental learning
1.4 Friends: being a friend. incl. girl/boy friend	4.4 Self/discipline/control	6.4 Discussion
1.5 Family, home (general)	4.5 Learning to choose	6.5 Instruction
1.6 Parents	4.6 Obtaining relevant information	6.6 Observation
1.7 Other particular family members	4.7 Personality development	6.7 Media (reading, T.V., radio)
1.8 Being committed to others	4.8 Ability to relax and enjoy	6.8 Feedback
1.9 Sexual relationships	4.9 Success and achievement	6.9 Reflection (self-criticism as a method of learning)
2.0 <u>Communication</u>	5.0 <u>Ethics/Social Responsibility</u>	7.0 <u>School Concerns and Knowledge Sources</u>
2.1 Language communication	5.1 Social awareness	7.1 School (in general)
2.2 Co-operation	5.2 Social conscience	7.2 Guidance officers/career information
2.3 Interpersonal understanding	5.3 Honesty/integrity	7.3 Teachers
2.4 Being yourself	5.4 Thoughtfulness	7.4 Resources (library, computer programs)
2.5 Feeling: appreciated/worthwhile/belonging	5.5 Self-identity/being yourself	7.5 Excursions, concerts, etc.
2.6 Self expression	5.6 Commitment to an ideal	7.6 School clubs and organizations
3.0 <u>Activities and Skills</u>	5.7 Living up to expectations	7.7 Homework/school work
3.1 Hobbies and cultural activities	5.8 Religious experience	
3.2 Variety in activities/new activities	5.9 Happiness	
3.3 Sport/sporting skills		
3.4 Health and physical appearance		
3.5 Drugs, alcohol, smoking		
3.6 Home activities		
3.7 Money and security		
3.8 Job related skills/work experience/jobs		
3.9 Further education		
3.10 Entertainment and social activities		

and skills to school sources, and about a quarter to general experience, including "working it out for themselves".

The pilot study provided two means of assessing attained skills, one by self report, with the results summarized in Table 2, the other by assessing the structure and complexity of the written responses to the B.Y.O. problems and in the essays. Table 3 indicates the frequencies of responses assigned to various levels. The means are generally close to 3 - multistructural, with a considerable range across levels. The correlations between levels on different tasks are generally moderate (Table 4), those between the B.Y.O. and essay tasks being based on relatively few (29) cases. The factor pattern in Table 4 indicates the complex but substantial relationships between these eleven estimates of skill level. What is measured by these levels appears to be sensitive to the particular problem or question and therefore more than merely an expression of general intellectual capacity. It appears to be an important aspect of the skills which adolescents bring to different life areas.

The levels of written responses are also related consistently to various student characteristics, as shown in Table 5. Girls in this sample performed consistently and significantly better than the boys on the levels measures, while transition students tended to achieve less well than others. Job expectations tended to be positively correlated with the essay levels.

These data by no means resolve the measurement problems. There are clearly facets of interest, motivation, and general verbal ability which may also contribute to performance on these tasks as well as competence in the social area, but the direction and pattern of the correlations is at least encouraging.

TABLE 2
FREQUENCY OF MENTION OF VARIOUS ASPECTS OF CONCERN AND LEARNING SOURCES

Area	1. Importance (1)		2. Importance (2)		3. Attained		4. Not Satis.		5. Needs		6. Attrib Sources		7. Further Op.	
	f		f	%	f	%	f	%	f	%	f	%	f	%
Relationships	212		34	39	37	43	19	22	24	28	102		13	15
Communications			32	37	25	29	5	6	13	18	14	16	5	6
Leisure	124		32	37	23	26	8	9	17	20	15	17	14	16
Health	25		9	10	4	5	1	1	2	2	1	1	0	0
Money/Jobs	178		13	15	9	10	14	16	12	14	10	11	5	6
Education	117		7	8	6	7	1	1	9	10	3	3	7	8
Pers. Dev.	64		65	75	48	55	37	43	32	37	29	33	24	28
Social responsibility	32		15	17	1	1	6	7	6	7	4	5	7	8
General Experience											19	22	22	25
School Sources											50	57	18	21
No. Responses	750		207		153		91		126		247		115	
No. Respondents	150		87		87		87		87		87		87	

TABLE 3
FREQUENCIES OF LEVELS OF RESPONSE TO ESSAY TOPICS AND BYO PROBLEMS

TOPIC	LEVELS					TOTAL	N	MEAN LEVEL
	1	2	3	4	5			
JOBS	10	13	25	20	20	88	20	3.3
LEISURE	9	27	24	13	10	83	18	2.9
OPP. SEX	5	17	22	23	18	85	19	3.4
FAMILY	7	14	8	14	12	55	12	3.2
EDL	6	17	15	25	14	77	17	3.2
AVERAGE %	9.5	22.6	24.2	24.5	19.1	388		Av. 3.2
BYO PROBLEMS								
1	10	32	49	10	6		107	2.7
2	6	26	43	29	4		108	3.0
3	15	35	44	12	2		108	2.6
4	15	25	46	16	2		104	2.7
5	8	38	43	11	1		101	2.6
6	5	37	38	11	2		93	2.7
AVERAGE %	9.5	31.1	42.4	14.3	2.7			Av. 2.7

TABLE 4
CORRELATIONS BETWEEN SOLO LEVELS WITH FACTOR COEFFICIENTS

	BYO (N = 108)						ESSAY (N = 87)					FACTOR			h ²
	Q1	Q2	Q3	Q4	Q5	Q6	IC	II1C	II2C	II4C	II5C	I	II	III	
Q1 BYO	.											50	25	02	31
Q2 BYO	48	.										60	24	13	43
Q3 BYO	39	35	.									74	00	06	56
Q4 BYO	37	45	50	.								60	36	35	61
Q5 BYO	15	28	38	48	.							42	04	54	47
Q6 BYO	27	44	41	48	49	.						55	04	37	44
IC	30*	48	44	48	33	27	.					48	51	14	51
II1C	27	22	22	55	28	17	51	.				21	71	24	60
II2C	23	24	00	36	16	19	52	64	.			06	83	15	72
II4C	32	44	20	50	34	39	36	51	49	.		26	47	54	58
II5C	12	14	03	33	41	22	29	35	29	57	.	01	28	73	61
VARIANCE %												21	18	14	53

* Only 29 students undertook both BYO and an essay task.

TABLE 5
LEARNER CHARACTERISTICS AND LEVELS : SIGNIFICANT CORRELATIONS

	AGE	SEX	TRANSITION	JOB HOPE	JOB EXPT	FINISH 12	TERT.	TAFE	JLS
LAVEL BYO Q1							.24	-.23	-.21
Q2		-.18	-.19	.19			.21		-.19
Q3		-.22	-.27	.21			.22		-.36
Q4		-.30	-.15	.20			.28	-.25	-.29
Q5		-.22		.17	-.18		.17		-.23
Q6		-.14	-.25						-.31
LEVEL I	-.28	-.21	-.17	.15	.20	.24	.23		-.17
II _{1C}	-.20	-.23	-.22		.20	.20	.23		-.18
II _{2C}	-.24	-.19				.22			
II _{4C}	-.16	-.30		.17	.14	.30			-.20
II _{5C}	-.16	-.29		.30		.14			
IMPORTANCE OF TOPIC DISSATISFACTION NEED MORE OPPOR- TUNITY	-.16				-.14 -.14	.21		.16 .17 .21	

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