

January 1979

A Comparison of the School Societal Interface in Three Countries

John Croft
Churchlands College

Follow this and additional works at: <https://ro.ecu.edu.au/ajte>



Part of the [Education Commons](#)

Recommended Citation

Croft, J. (1979). A Comparison of the School Societal Interface in Three Countries. *Australian Journal of Teacher Education*, 4(2).

<https://dx.doi.org/10.14221/ajte.1979v4n2.2>

This Journal Article is posted at Research Online.
<https://ro.ecu.edu.au/ajte/vol4/iss2/2>

A Comparison of the School-Societal Interface in Three Countries

John Croft
Churchlands College

Recently there has been a growing interest in improving the connection between school and society in general, and schools with their communities in particular. This concern comes from many sources. Employees criticise teachers as being ignorant of the world of work, and blame teachers for helping to create high school leaver unemployment by generating unrealistically high expectations in high school students. Parents too, are demanding that schools become more accountable to them in terms of the skills taught to their children. Social reformers are advocating that school teachers take more account of the ethnic sickness of the local population, and make efforts to include multicultural materials into the curriculum.

All of these critics share the view that schools, as institutions, are out of touch with the nature of society; with its real concerns and wishes. They argue that innovation in education is in peripheral or superficial areas and frequently counter productive to the real need for schools to keep pace with other changes in society as a whole. The result seems to be a cultural lag which frequently makes schooling seem irrelevant to the lives of those whom they serve.

But this cultural lag was first diagnosed by educational reformers in the 1930's, if not before! It would appear too, that most, if not all attempted changes in education since then have been justified precisely in order to bring school into closer, more intimate contact with society! Is the pace of change in our society the only cause of "culture lag" in education? May there not be other reasons?

Obviously the schools of some nations have a closer connection with their communities than others. The single teacher rural school of Australia's recent past would seem to preserve a far greater awareness of the nature and needs of the local community than do the large metropolitan 5 or 6 years high schools. Comparative education, as a discipline, may suggest a reason why the interface between school and society is large or small, and why, despite a long criticism, the problem persists.

The Comparative Approach

G.Z.F. Bereday in various works has laid out a model for an understanding of problems in Comparative Education (1964, 1967). Some have criticized this "hypothesis testing" or "problem solving approach" to comparative problems on the grounds that there is no "one" comparative method; any tool which helps in trans-national understanding of education should be valid. Nevertheless, for the purpose of this paper, I intend to follow a modified "Beredayan" method.

Max Weber (1974) also provided probably the first conscious example of the use of "ideal-type" analysis. In modern socio-political sciences, this today is one of the most frequently used analytical methods. This paper will attempt to

produce such an ideal-type analysis on the nature of the "societal school interface" to aid in the comparison of education in the U.S.S.R., Indonesia and Australia.

The "Ideal Type" Model

Talcott Parsons (1951, p.41), in his attempts to systematize a general sociological theory has produced a social model which is not without relevance to education in general or schooling in particular. According to Parsons, society is held together by agreed upon "norms", which through social approval or disapproval, limit and contain behaviours into socially acceptable channels, thus determining "roles", the "patterning" of roles and norms creates "institutions", of which the formal education system would be a good example. Norms are inculcated through a process of "socialization" in which education and therefore school institutions play a major role. We will return to this "passive" approach in the conclusion.

Unfortunately, while it gives an admirable explanation of the "cohesion" of society, amongst other things it is "a historical"; being weak in its explanation of social change through time. Critics of Parsons have either attempted to modify Parsonian concepts or else to attempt to modernise sociologies of change derived from Marx and Weber.

Neil Smelser (1966), in conjunction with Parsons, attempted to overcome this difficulty through the use of a bipolar model, distinguishing traditional societies in which extended families fulfil most social functions, and modernity; where institutional specialization is evident. Derived from Ferdinand Toennies (Etzioni, 1974) "Gemeinschaft" and "Gesellschaft", such models have come under fire from development theorists as being merely Social Darwinism in a new guise, misunderstanding the nature of change and development.

One idea, derived from these schemas which is, I feel, of importance is that of "social consensus." Pluralistic societies would be expected not to have a single consensual system relating to social goals and values, while if a society affirms strongly a single consensual goal system, this would appear to manifest itself in ideology and through social controls would lead to a highly unified society; which on first approximation has similarities with Parson's model above.

Highly fragmented plural societies, irrespective of the ethnic, social, economic, religious or other causes of that pluralism, are by definition unable to have an agreed upon consensus, and this would produce an equal plurality of rival ideologies and belief systems in varying degrees of competition and conflict with one another. In social control terms, society is fragmentary, and if allowed to go too far, is in danger of imminent social "collapse".

This paradigm has predictive value when applied to an examination of education systems. On an "ideal type" let us consider our unitary society as type A, while our fragmentary society is type B. Pushed to its ultimate conclusion, in common with such "ideal-types" no society could exhibit either complete unitary monolithic control, or be a case of atomistic anarchy, however we can say that societies can, to varying degrees, be ranged along this axis.

Testing The Model's Validity: 3 Case Studies

David and Vera Mace (1964, p. 263-4) show how "Soviet" and "Western" societies can be ranged along this pole. "Individuals living together have to surrender some degree of personal freedom in exchange for the protection and support of the group. There are all degrees of collectivism, from a relatively superficial association of people who retain considerable personal freedom, to the most rigidly controlled organisation in which individuality is almost totally surrendered. The difference between Soviet and Western society is in this respect only a difference of degree. The Soviets, whatever may be said to the contrary, do not seek the suppression of individuality. In the West, we certainly do not ignore the need for conformity to group standards. The difference is that the Soviets consider that a larger degree of freedom leads to "individualism", a condition destructive of social well-being; while the West considers that a larger degree of conformity, leads to 'enslavement', a condition destructive of individual well being. (Mace, 1964, p. 263-4)

Thus, despite the fact that, in encouraging the use of mother tongues in the Union and Autonomous Republics and national regions, as well as encouraging indigenous folklore, the U.S.S.R. has certain features of a pluralistic society (i.e. type B), the consensus on social goals and values would tend to place it closer to societal type A.

Indonesia has little other than her enormous population and large area extent in common with the U.S.S.R. (UNESCO, 1974) Its recent history is certainly characterised by "a certain measure of disorder, inconsistency and lack of sustained direction" (Mace 1964, p. 264) which the Mace's consider characteristic of the Western model, but as the country has had just recently an estimated 100,000 political prisoners, (Amnesty International, Nov. 1976) one could not continue with them in saying that "individual freedom and the right of dissent is permitted up to the limit of what can be socially tolerated and contained. (Mace 1964) This would place them more towards type A, but there is another reason. Three times within the last 30 years, dissatisfaction with government has exceeded this "containment" limit; the Revolt against the Dutch, the shift from "Parliamentary" to "Guided" Democracy and the abortive P.K.I. (Communist) coup with the resultant military seizure of power. (Feith & Castles, 1973, p. 63-347 also Lidda, 1973) although its sovereignty was recognised in 1949, the Indonesian people have ever since then been engaged in a revolutionary process more complex and taxing than the struggle for independence. This multifaceted revolution cannot be decided by arms or political compromise, for it involves the transformation of an entire society into a mold as yet undefined, and within a timespan made all too short by continuing economic and social crisis. (McVey, 1963)

This evidence, together with the conclusion of Hildred Geerte (McVey, 1963, p. 24-97) that Indonesia is a classic case of a pluralistic society- would lead to the inclusion on the continuum close to the Type B extremity.

Let us consider a society intermediate to these two extremes. Australia has a size comparable to both Indonesia and the U.S.S.R. but a population

* the situation of late has shown a marked improvement with the release of over 50,000 prisoners.

comparable to neither.* Like both, she has enormous untapped resources, and may, in certain respects, like Siberia, be considered a "frontier" society. However, politically, Australia is a Commonwealth of States based on the Westminster Parliamentary model. Unlike Indonesia, a fairly small number of "consensus groupings" can be recognised, and the parliamentary democracy functions as an institutional apparatus for balancing and shifting power, having weighed up majority and minority views. Australian history is stable; so stable that writers have labelled it "the land where nothing ever happens." (Horne, 1963) Although Australians don't recognise a single goal, as the belief in a future Communist Society in the U.S.S.R., change in Australia can be seen to be "probable" in certain recognisable "areas" towards certain perceived "directions".

Australia is intermediate in another important respect. As Davies and Encel point out, there is one serious "interpretation of Australian history - the notion of an egalitarian paradise (or purgatory) fed alike by travellers' tales and much historical writing." (Davies & Encel, 1967, p. 41) However, after an extremely careful analysis of wide sets of social data, they conclude that there is a difference between a "working class (whose) attitudes continue to reflect a basically collectivist view of society and middle class attitudes basically an individualist one." (Davies & Encel, 1967, p.18) As similar research has shown for the U.S.A. and U.K., in their analysis they show how education plays a role as "the mainspring of social differentiation." (Davies & Encel, 1967, p. 42) J.R. Lawry concludes "far reaching changes are required before equality of educational opportunity and the use of ability irrespective of social class become realities" (Davies & Encel, 1967, p. 97)

Even so, the difference between social classes in Australia is nothing compared to the inequalities between the urban, cosmopolitan elite of Djakarta and the landless east-Javanese peasant labourer, the sea dwelling Borneo Dyak or the West Irian head-hunter. (McVey, 1963, p. 24-97)

The question of social classes in the U.S.S.R. is a difficult matter, and for the authorities, an extremely politically sensitive area. (Bereday & Pennar, 1960, p. 68) attempted to show the effect of social status stratification on Education and David Lane (1971, p. 136) attempted a rigorous analysis of the nature of social classes in the U.S.S.R. He concludes by saying that "the system of social stratification in state socialist society has peculiar features distinguishing it from those of advanced capitalist states. The limited individual private inheritance of wealth has eliminated ownership classes as known in Capitalist societies, but it has put a premium on achievement as a mode by which inequality has been maintained and thus given institutional control over wealth enabling some men (i.e. the managers) to have rights over property which others are denied." (Lane, 1971, p. 136) Even so, we see one can agree with Soviet sources who quote (with pride) that classes in the classical Marxist sense no longer exist in the U.S.S.R.

Thus, in this respect also, the degree of social stratification reflects to some extent the position of a society on the hypothetical model. Social type A is characterised by an absence of major social divisions, by a strong, stable and

* figures given by UNESCO, 1974, USSR pop 250, Indonesia, 125, more recent figures for Indonesia, (1978) place the total closer to 135 million. Australia in the same document was quoted as 13 million perhaps ½ million less than more recent estimates.

unitary government attempting to propel society towards a goal which, while not perhaps agreed upon by all, at least has the acquiescence of all but a "deviant" (in Soviet terms) minority. Social type B has a plurality of horizontal and vertical social groupings in convert and often overt competition with each other. Political power is in the hands of whichever group has control of the state "apparatus" at that point in time, and changes in political power are through bloody "revolutionary" seizure or bloodless coups. Social type C while intermediate in terms of social cohesion, has individual characteristics in the way in which group political changes is "institutionalised", because the lack of cohesion is not interpreted as socially threatening. This is probably because the differences in consensual goals among groups in Society C are less than their similarities. We could continue to analyse reasons why each society occupies its position in terms of ideology, developmental position and other factors, but it would be outside the purpose of this essay, i.e. the examination of the effects of societal type structures, as here described, upon education.

Educational Predictions Drawn From the Model

Dr. Lauglo, in a recent lecture at the Institute of Education (Lauglo, 1977) suggested that plural societies would be characterised by "volunteerism" - defined as the characteristic of various social groupings to establish and support "independent schools" outside the state provided system.

If this is so, one would expect Societal type A, having no recognised independent values or goals to have no independent schools, Societal type B to have a plethora of independent schools of varying types, and societal type C, to have an intermediate number of such schools organised into distinctive categories. Furthermore, as type A will have a single state controlled system with change perceived as unidirectional, in this society generalizations about schooling will have a high probable validity. Type B will have a variety which will make generalization almost impossible, as whatever conclusions are drawn, numerous exceptions will be found. School systems in type C will be divided clearly between a public and a private system, and thus again, it is intermediate.

There is one respect, however, in which this median position is not found. Schools in type A societies would, we expect, be thoroughly integrated with consensual goals and values. A major concern of such a system would be to bring school as close to social life as possible. (Bereday, Brinckman & Lead, 1960, p. 247-8)*. The state school systems in type B societies are closely linked with the goals, values and aspirations of whichever group wields political power. We would expect that as the holders of political office change, so the new government would try to alter the school system to make it productive of adults supportive of its aims and objectives. This situation would lead to accusations of "dysfunctionality" "lag" and to conflict. (Kohler, 1973, p. 157-169, & Vander Kroef, 1959) In the private sector, not wholly distinguished from the public one, each school would draw support from, and

* (Khrushchev's speech of Sept 1958 emphasising this aspect was given a wide circulation both inside & outside the USSR)

be closely integrated with goals of its founders. Thus in both types A and B the connections between the community and the school would be close and continuous. Non-formal structures of education are expected to be highly supportive of the formal systems, be they public or private.

In Society C, however, schools in the public sector will attempt to be "apolitical" as undue allegiance to any one consensual group will lead to retaliatory procedures by the others. Equality of educational opportunity would here, unlike societies A and B, be a major issue. The content of education will try to be "value free" and a major concern will be to avoid "indoctrination", two goals of little importance in the other types. One way the schools could achieve these goals is to attempt to distance themselves from society, to try to produce an education of "value to itself" and not as a "means" to possible controversial "ends". Thus we will see education divorced from "training", which will be consigned to "non-educational" bodies of less prestige.

Constraints Upon Case Comparisons

If the models are to have predictive value we must ask to what extent are these hypotheses observed in reality? Bereday (1967, p. 169-187) considers such testing is a major cornerstone of the comparative methods, but C. Arnold Anderson (Kazamias, 1961, p.90-96 & also Gesi, 1971) points out a difficulty. In Comparative Education, he claims "we have a plethora of independent variables, but a paucity of dependent variables." (Kazamias, p. 90-96) Scientific method is based upon the idea of controlling as many factors as possible and measuring the effects of altering single factors at a time.*

If we are to elucidate the effects of position on the continuum upon education it is important to examine what alternative features may explain observable similarities or differences.

It is difficult to imagine how three countries could be more different than the U.S.S.R., Australia and Indonesia. Politically, the U.S.S.R. is the creator of modern Communism, Australia is firmly Capitalist, while Indonesia fluctuates between (and flirts with) the two, attempting a position of non-alignment. Political ideologies effect education and thus interfere with the picture, although, as I will attempt later to show, possibly less than we at first imagine.

Equally different is their wealth per capita. Discounting certain oil-rich sheikdoms, Australia is amongst the three richest per capita countries in the world. Indonesia is shown by UNESCO to be among the 25 poorest. (UNESCO, 1974) Wealth undoubtedly affects provision, though in the criteria of our model, its effects would be quantitative, not necessarily qualitative. The same goes for amounts of government expenditure available for education, which also shows a wide divergence. Jones (1974) states that Australian expenditure, as a percentage of the G.N.P. or government revenues is well behind countries of comparable wealth, (Launerys, 1964) while Indonesia is reported to have spent 2.2% of the G.N.P. and upwards of 18.5% of Govern-

* (see the work of Thomas Kuhm, or any of the works of Karl Popper for an elaboration of these arguments.)

ment revenues on education. (UNESCO, 1974) David and Vera Mace (1964, p. 250-51) say that per capita expenditure on education in the U.S.S.R. is amongst the highest in the world and Tamiak 1966 quotes a figure of about 5.3% of the G.N.P. Here government provision of funds, expected in type C to maintain balance, or separate financing of private schools, as in type B, would be expected to effect education patterns.

Despite these differences, there are certain similarities. The appearance of certain similarities of size has already been reported. Also, despite the fact Indonesia is an archipelago and the other two are major continental countries, population and hostile environments in the U.S.S.R. and Australia, means that like Indonesia there are major problems with communications and transport; a factor of major importance to the provision of materials to schools in isolated areas.* Rural-urban differences and the provision of such schemes as correspondence education therefore show marked similarities in the three countries. Equally, despite Australia only having 13½ million inhabitants, compared to Indonesia's 124 million and the 250 million of the U.S.S.R., the fact that 70% of Australians live in urban areas, most Indonesians live on Java and most Soviet citizens live in Europe presents certain common development problems, especially considering the underdeveloped wealth of under-populated regions.

Rather surprisingly, despite political differences, there is a great degree of similarity in the "centralization" of power within each country. All three nations commenced their modern phase as federations, although in each case, political necessity has required a growing centralism.

One cause of this, Philip Jones (1974, p.63) asserts, is that "Australians have always looked to the centre of things, to the 'government' for help." (Jones, 1974, p. 63). Originally conceived of as a confederation on the U.S. plan, a referendum in 1942 conferred, for war time purposes, the power of raising finance through income tax, to the federal government, and it has never been restored to the states. As Jones shows "he that pays the piper calls the tune" (1974, p. 64) and the federal government role in financing education in Australia has grown by several hundreds percent since the end of World War II.*

Similarly, Indonesia began as a "United States". Here separationist attempts in the 1950's amongst the outer islands led to an increase in the political role of the centralizing army. The return to the 1945 centralized constitution was one of the central issues of Sukarno's "Manipol", the political manifesto which laid down the blueprint of "Guided Democracy". To prevent Communist (P.K.I) gains in local elections Sukarno appointed local government officials and even with the new regime, provincial and regency governors are still centrally appointed (Mortimer, 1973)

The U.S.S.R. has a similar history. The February Revolution saw the dismemberment of the centralized Tsarist Russian Empire and the October

*this study originally also intended to include a comparison of part-time and correspondence education in the 3 countries. However, essential similarities in all 3 cases made such a comparison insignificant in terms of the model here discussed.

*(this has been especially true since the appearance of the Karmel Report on Federal Financing of Education 1972-3)

Revolution promised to uphold the national aspirations of the federated Union members. Nevertheless, despite this "de jure" separation of powers the defacto control through the extremely centralized C.P.S.U. has meant that major decisions are all taken at Moscow, the Republics' responsibilities being largely limited to deciding the best methods of regional implementation (Hasler, 1969)

Perhaps one can conclude, despite the position on the axis already established, central powers for large states inevitably grow in response to national demands for unity and standardized policies. Certainly the growth of executive power in the U.S.A. would appear to support this assumption.*

Thus, with these similarities in mind, if we remain aware of the differences we can perhaps avoid the difficulty of insufficient control. Undoubtedly Philip Foster (Gezi, 1971) would consider the situations too disparate but comparative education has a long tradition of such widely based comparisons.

Case Studies and Educational Prediction: Juxtaposition

Does education in the three countries conform to the predictions described above? If we are right in identifying the U.S.S.R. with Societal type A there should be only one strongly centralized system of education under close government control. This is precisely the case. J.J. Tomiak says succinctly, "the entire system of public education in the U.S.S.R. is directed and administered by government departments. There is no private sector (Tomiak, 1966).

If we are correct in identifying Indonesia with type B societies, then it should be characterized by "volunteerism". This question is a little more difficult to answer. Stephen Douglas, in discussing 'wild schools' outside the government system, says "Government officials have been unable to discourage 'wild schools' . . . and in fact, from time to time they have urged private organisations to assume a share of the education burden." (Douglas, 1968, p. 60) Thus, Douglas shows, (1968, p. 60) government agencies all operate 'private-public' schools for recruitment, including the armed forces and the police (Douglas, 1968, p. 60) But this is still government initiative . . . albeit of a peculiar kind.

Other evidence of volunteerism is the way private universities out-number considerably state foundations, (Douglas, 1968, p. 61) and in their education sector review the Indonesian government shows that of a total of 5,548 General (i.e. non-specialist) Junior High Schools, only 1,659 were "public" or government controlled. (Indonesian Ministry of Education & Culture, 1976)

The statistics are impressive, but they don't do justice to the way in which groups with individual goals in mind, establish schools for the furtherance of these goals.

For example, one of the reasons why after 1957 "the Communist Party became the largest organized political force in the country" (Huizer, 1967, p. 35) and the largest such party in the non-Communist world, was one of the effects of their Sekolah Rakyat (McVey, 1958) or peoples' schools which

*(Although post-watergate executive power has shrunk there has been an equal growth of centralizing congressional powers, which lends to support the argument)

were vital in mobilizing peasant support from Indonesia's rural base. Although suppressed with the military seizure of power (in confirmation with expectations of Model type B), Gerrit Huizer (1967, p. 36) shows that the P.K.I., "in order to improve their strategy and effectiveness, cadre and leadership training courses were more systematically organized from 1959 onwards. Regional and local training centres were created. Great attention was given to the study of social structures of the villages and hamlets, to experience of peasant organizations elsewhere and to simple agricultural techniques." (Huizer, 1967, p. 54)

What is the case in Australia? Our prediction says that in this respect it should be intermediate. Jones (1974, p. 80) gives an indication of the existence of a private sector, but this, in itself, doesn't place Australia on the continuum except to the right of the U.S.S.R. Professor Sol Encel (Encel & Davies, 1970, p. 418) says "in 1966, 78 per cent of primary school children were at state schools, compared to 74 per cent of secondary pupils; 17.4 per cent of secondary pupils attended Catholic schools and 8.5 per cent at 'other non-government schools'" (Encel & Davies, 1970, p. 419) these being private independent schools on the English "public" school tradition. Australia thus possesses three distinct types of schooling, and this, together with the numerical evidence firmly establishes it in position C, intermediate to the U.S.S.R. and Indonesia.

But we expect our model also to predict the degree to which schooling is integrated into the life of society. Half of this question, in the case of the P.K.I. in Indonesia has been answered, what of the other groups?

Rex Mortimer (1973) tried to show that in Indonesia, political power was in the hands of two partly contradictory, partly complimentary groups, the older officer in the army and the technocratic bureaucrats in control of the Ministries, the distinction between the two groups, frequently is not easy to draw (some fall in both categories) but, if Mortimer is right, we would expect the state school system to be closely linked, "as a type B society, "with the goals, values and aspirations" of these groups.

Evidence of this is obvious, though indirect. Justin van der Kroef accused Indonesian schools of being developmentally dysfunctional whilst showing that for those seeking bureaucratic posts they are highly functional as an avenue of entry into the class of the "pramong pradj" as the bureaucrats are called. To accuse schools of being poorly designed for rural needs, as Clark Cunningham (Koentjaraningrat, 1967, p. 89) and others have done, and to blame school for its high drop-out rates of all but those seeking eventual positions of high status, is therefore, in terms of the model unrealistic. If the model is correct, schooling will continue to reflect minority needs until Indonesian society can come closer to the centre of the continuum.

But this too poses problems, albeit of a different kind, as the example of Australia indicates. In his analysis of Australian schooling R.T. Fitzgerald (1970, p. 1) said, "Even though only a small minority of secondary students went to university, preparation for university formed the major objective of secondary schooling". (Fitzgerald, 1970, p. 1) If we take this evidence in conjunction with that of Ralph F. Birdie (1956, p. 83) that "one kind of evidence

suggests that many employers in business and industry attach no particular significance to higher education as it relates to their needs. Only a few of the larger employers have systematic programmes for hiring university graduates, and most employers appear to consider that university training, other than technical training, is irrelevant for a career in business or industry," (Birdie, 1956, p. 84). We are left in a strange paradox indeed. Birdie goes on to consider government employees, an important section (one third) of the labour force in Australia, saying "the opportunities for university graduates in government positions . . . are very limited and educated persons are offered little inducement to enter administrative or management jobs." (Birdie, 1956, p. 85) Taken together, this evidence would seem to indicate Australia does fulfil the prediction of type C societies; schooling appears out of touch with the genuine social need of employment, truly "distancing itself from society".

Professors Hirst and Peters (1967, p. 44) have in recent years, been concerned with the way so-called "progressives" have been revising curricula to eliminate many of the older established "disciplines". R.S. Peters, (1967, p. 1) provides as justification for this criticism, a rigid philosophical distinction between education and training and states that training is a method used in indoctrination. From the experience of one state, R.S. Peters' work was used as an important part of the Philosophy of Education course for the professional training of teachers.*

Brian Holmes, (1968, p. 1-16) in the 1968 World Year Book on Education within Industry writes, "Educationalists, with notable exceptions, have tended to regard industrial training as different from and inferior to true education." (Holmes, 1968, p. 14) This is true of type C societies, but certainly not true of the others, as the Russian examples of Lunacharsky (Fitzpatrick, p. 671) and Makarenko (Mace, 1964, p. 254-257) or the Indonesian educationalists Ki Hadjar Dewantara (Lee, 1974, p. 41) and Mohammed Sjafei (Soejono, (undated) p. 9) demonstrate. They were all greatly concerned with this problem, and in each case "labour training" was considered an important part of the school systems they respectively established.

A comparison with Soviet systems will demonstrate this conclusion more clearly. Thus Khrushchev in 1958 has been quoted as saying "In the present form, Soviet secondary and higher schools lag behind the requirements of life. Their principle fault is a certain gap between theoretical instruction given to school children and productive labour. (Bereday, Brinckman & Read, 1960, p. 240-270) That this is an abiding concern of the U.S.S.R. is illustrated by Krupskaya's works. "In her essays and speeches on education she emphasised that the distinctive features of Soviet schools should be their intimate and close relationship with Labour." (Bereday, Brinckman & Read, 1960, p. 246) There has been much work done showing how even academic subjects are taught with this polytechnical principle (Bereday, Brinckman & Read, 1960, p.256-63) in mind, not as ends in themselves, as in Australian practice (if not theory) but as means to societal ends.

*Peters' work on Education & Initiation was used as the major text in the Philosophy of Education course at the University of Western Australia, 1970-72.)

Balanced Comparison

From the above exercise, it would appear that the constant "ideal type", for the societies examined, is fairly consistent. But Bereday (Bereday, 1967, p. 169-187) would consider this merely "Juxtaposition" of Comparative data, "defined as preliminary matching of data to prepare for comparison." (Gezi, 1971, p. 59)

Bereday would consider a superior method is "Balanced Comparison" which "is a systematic shuttling back and forth between the areas under study." (Gezi, 1971, p.64-65) But Bereday would impose limits on the data he considers relevant. In analysing likely developments in the subject Bereday says, "more likely and more proper, comparative education will concentrate on school systems, while abandoning concerns appropriated by the other specialities," (Gezi, p. 72) of International and Development Education.

But this would then no longer be comparative education but comparative schooling. Lawry (Encel & Davies, 1967, p. 76) gives a more correct emphasis when he says "Education is commonly but incorrectly regarded as what goes on in the school - the formal learning of subjects which introduce children to their cultural environment and prepare them for citizenship and employment. But the education of children is largely informal, and is shared by all the social groups with which the child has contact - indeed he may reject the values implicit in school life. Teachers and parents do not always recognise the lack of continuity between formal and informal aspects of education." (Encel & Davies, 1967, p. 76) Perhaps this criticism could be extended to include such thinkers as Peters and Bereday?

There is much sociological work to indicate that perhaps it is true that the bulk of education goes on outside the school with the family, peer group and associations, and as a working adult. These informal and non-formal avenues of education are coming under increasing scrutiny by international planners such as Philip Coombs (1968, 1974) and Frederick Harbison (1973). In recent years, evidence has been mounting which suggests that it is largely as a result of things learned through non and informal education that determines an individual's success or failure at school.

If this is so, a balanced comparison of the non-formal aspects of education would do much to establish the validity of the predictions drawn from the three "ideal types". It is also this "interface" between schools and society, which would do much to clear up the difficulties, mentioned above, concerning the degree to which a school system participates in, or removes itself from, the general life of the community. Let us first consider the family and schooling.

The School-Society Interface: The Family and Schooling

The relation between the home and the school in the U.S.S.R. is, as the model predicts close and continuous. "In the training of Soviet young people, the home and the school are considered close allies." (Mace, 1964, p. 254) "We cannot allow family" says Anton Makarenko "to educate as it pleases. We should organise the family education and the organised starting point should be the school." (Mace, 1964, p. 253)

"The co-operation between parent and teacher is not only recognised by each, it is understood and recognised by the children." (Mace, 1964, p. 253) These quotes show the theory of school/family interaction, what about the practice?

Nigel Grant (1964, p. 59-63) goes to some lengths to show how "Passive approval as in other things, is not enough; the school uses every available means to enlist the parents as active supporters of its work, and to make them conscious of the family's role as the primary call of socialist society." (Grant, 1964, p. 59) Parental supervision of schooling goes as far as allowing "Parent's trinitities", elected by the parents of the children of a particular class, to "sit in on lessons to see them in action for themselves. As for the teacher, home visiting is regarded as part of his normal duties. This starts at the earliest classes and continues right up to the end of the school course." (Grant, 1964, p. 63) This, in brief, only gives an idea of the ways used to secure parental-teacher co-operation, in fact a wide variety of methods are used ranging from informal social pressure even at the parent's work-place, to highly formal structures such as the Parents' University. (Tomiak, 1966, p. 103-4)

In Australia things are very different. Firstly educational theory has almost no conception of bringing the parents into the school or taking the teacher home to the family.

In practice, "the actual parental involvement in the schools their children attend still seems generally limited to raising funds for additional equipment over and above their basic supplies provided by 'the department'". Not that parents are really encouraged to develop an interest in educational questions relating to their school; indeed the opposite is often true. Teachers, principals and administrators alike only minimally encourage involvement of this kind." (Jones, 1974, p. 42)

A William Tyndale Affair could never occur in Australia. Parents too readily accept their own ignorance to demand teacher accountability for their children's education, and their once a year parents' evenings are poorly attended, and then only by a tiny handful of the most educated parents.

For a teacher to try to visit the parents at home the situation is almost unheard of. From experience in an attempt to try to visit parents in this way. I found myself in difficulty with an irate parent who had telephoned the headmaster of the school protesting at my intrusion into their private lives. The *laissez-faire* separation of families and schools in Australia keeps the two firmly apart.*

In Indonesia the situation is more complex and the enormous variety makes it almost impossible to generalize, as our model would lead us to expect.*

The fact that schooling in the government system was designed to produce bureaucrats poses enormous problems for rural parents, for example. Thus, Koentjaraningrat (1967, p. 254-302) in a case study of a rural Javanese village

*In 1974, after circulating parents preparatory to home visiting as a way to overcome poorly attended parents evenings & to explain to parents my methods & objectives, certain parents contacted the principal in the way described.

*Reports by Peter Polomka (1969), amongst others indicate the contradictory nature of the evidence.

says "most parents in Tjelapar are aware of the importance of school education for their children and they do start sending them at the age of eight, nine or ten years. However, the parents are faced with the fact that many children are reluctant to work as peasants after graduating from school." (Koentjaraningrat, 1967, p. 280) Since 80 percent of Indonesia's population live in such villages, it gives some understanding of the situation.

However, this is far from universally true. The taman siswa (Ag Soejono, undated, p. 9) schools (or 'Gardens of Learning') established by the Indonesian educator Ki Hadjar Dewantara, and at one stage a formidable rival to the (then Dutch run) government systems were "places where pupils and teachers could live and work together as a family and where the parents of the students could participate in the activities of the schools." (Lee, 1974, p. 41)

Also, Indonesia has traditional type of mutual aid called "gotong royong"* which has frequently led to Indonesian parents contributing to the building, equipping and running of schools and occasionally providing it with a teacher; even those wholly within the government system! As gotong royong acts as a cushion or insurance against famine years, non-participation by parents in villages where such traditions are important are rare. (Koentjaraningrat, 1967)

The School-Society Interface: Youth Movements and Schooling

If attention is now turned to a comparison of the role of youth movements and education, again it can be seen that the Indonesian evidence - reflecting its pluralistic condition - is highly varied.

The Indonesian government in its Education Sector review, (Indonesian Ministry of Education & Culture, 1976) attempts to make an analysis of 'out of school' programmes and lists among important contributions that of the 'Pramuka' or "National Scouting movement. About 12 million youths, 7 to 25 years of age are members throughout the country, with 80 to 90% of them still at school. The members are enlisted to help carry out government programmes in a variety of ways. Among other projects, they work in the applied nutrition programme, agricultural extension programmes and the population education programme." (Indonesian Ministry of Education & Culture, 1976)

As reported by UNESCO, there seems to be growing interest in such non-formal approaches to education: a ministerial statement in 1972 declared "that the vehicle of education is not restricted to the schools, but that it may also be the place of work, play and other places of gathering as well as of living in general." (UNESCO, 1974B)

However, as I stated in an unpublished paper recently (Croft, 1976, p. 2) such an approach to education is a very recent phenomenon and one wonders to what extent it reflects a true change in Indonesian thinking. Following closely proposals made by Philip Coombs for a systems approach to educational planning, these Indonesian plans could quite possibly," as Harold Crouch (1972, p. 206-218) in part suggests "be merely an elaborate charade to gain international respectability" and, I hasten to add, aid money from the World Bank (1974) sponsoring such schemes.

*Much work deals with 'gotong royong' in its village context. Possibly the best describing its effects on Indonesian Education is the Unesco study "Educational innovation in Indonesia", Paris 1974.)

Nevertheless, in at least one area, the Jombang Kabupaten or regency of East Java, Woodhouse and Lubis (Ahmed & Coombs, 1975, p. 111-130) have reported that an extensive non-formal education project, using Pramuka, Mass Education (Pendidikan Masyarakat) and agricultural extension (Bimbingan Masyarakat) organisations coupled harmoniously with the development goals set by the organiser; the regency chief, but the goals are not universally shared by any means, as the recent collapse of the Sekolah Pembangunan or Development Schools indicates. (Indonesian Ministry of Education & Culture, 1976)

In Australia there are two parallel youth organisations which have an overlap with education. John McLaren (1968, p. 140-180) reporting on the educational possibilities of the boy scout movement says "possibilities are, however, seldom achieved in practice in cub-packs, which are often run either by giggling girls just out of school or by spinsterish females of more mature years who can rarely enter the bloodthirsty world of a boy's imagination." (McLaren, 1968, p. 160) Based upon similar leisure activities as in Britain, the holding power of the Baden-Powell scouting movement drops markedly in the transition to Scouts (10 to 11 years) and Senior Scouts (14 years) so that any boy (or girl) belonging to the scouting movement as an adolescent is considered by his peers as slightly odd or immature. The only interaction between scouting and schooling is in Primary Schools on ANZAC day, when having a scout uniform confers a certain prestige.*

Similar impediments operate in Australia to minimise the effectiveness of the Boys' Brigade and the YMCA and analogous girls' movements. One can conclude therefore that youth organisations of this kind are considered private leisure time activities, and there is no attempt to encourage school participation, nor to make use in the school of the valuable practical activities which such movements provide and which the children frequently receive as of more immediate relevance to their lives than what they learn in class.

This conclusion, however, does not extend to include the second type of youth organisation - the sporting clubs. Unlike what we would expect of Australia as a case study for social type C, these do closely reflect social values, and in personnel, overlap greatly with the schools. McLaren (1968, p. 163) for example, reports that "the ostensible objectives of a vast number of Australian schools "are that their public reputation depends upon their sporting prowess and their internal organisation is bent to meet the demands of this twentieth century Procrustes. (McLaren, 1968, p. 165)

An analysis of the time devoted to sport within school hours supports this claim, but even more important is the way outside sporting organisations; tennis, swimming, cricket and football clubs, in providing extra facilities, supplement the schools. The values learned, of the appreciation of physical prowess as superior to scholastic achievement, or the camaraderie of "mateship" and the competitive values of teamwork help to give Australian culture its special "flavour". Nevertheless, negative effects are also apparent. McLaren (1968, p. 165) speaking of those involved, says, "if they succeed they find themselves

*On the 25th April, certain schools allow Boy Scouts or Girl Guides the responsibility of laying the wreath commemorating landing Australian & New Zealand Forces at Gallipoli in 1915.

with competing loyalties and excessive demands on their time. The pressure placed on the schoolboy football hero in a country town is strenuous and usually it is his schoolwork which has to suffer." However, such uncomplimentary dovetailing between youth activities and schooling is to be expected for type C societies, as the societal-school "distance" of the model suggests.

In Russia, no doubt such conflicting loyalties also exist. Here, however, youth organisers and school authorities, through their close contacts, would be more aware of the situation and be in a better position to take corrective measures.

Bereday, Brinckman and Read (1960, p. 396) go to considerable lengths to document extra-curricular activities, clubs and circles, which exist in addition to the youth organisations which are designed to supplement the schools' educational programmes. Ina Schlesinger (Bereday, Brinckman and Read 1960, pp. 395-401) shows how the effects of the Octobrists, Pioneers and Komsomol, both in school and out are ubiquitous.

The integration of school into society, through the mediation of the Youth organisations could well be considered almost the distinguishing feature of Soviet Education. Joan Hasler (1969, p. 131) quotes a letter, sent to Dymphna Cusack by a Russian schoolgirl, illustrating the power of the Komsomol within the school organisation through an elected school council. Nigel Grant (1964, pp. 64-85) shares this view; "school branches (of the Komsomol) take a considerable share of the running of their schools. They elect committees to help with clubs and societies, they run debates and meetings, they discuss problems of discipline, moral education and scholastic progress with the director, and act as Pioneer leaders to help the younger children with their part in the various tasks. They make the teachers' job easier by keeping their own members and classmates in control." (Grant, 1964, p. 72).

This practice is well reflected in theory. Youth movements are consciously seen as a means of harnessing the theoretical principles learned at school and relating them to "socially useful labour." (Bereday, Brinckman and Read, 1960 pp. 395-401). This idea of the collective and its connections with explicit social goals is shown by Khrushchev's address to the Komsomol—"Public organisation including the Komsomol, must play an ever greater part in the struggle with the failings and vices and for the affirmation of the new in our life. It is not right to bring matters to such a point that the state organs must handle everything—we say that under Communism the state will wither away. Which organs will then remain? The public organisation! Whether they will be called Komsomol or Trade Unions or otherwise, it will be the public organisations through which society will regulate its relations. (Bereday, Brinckman and Read, 1960, p.398)

Conclusion:

From these two examples, it would seem that the model does have predictive value and thus in some ways, does describe social realities comparative education, therefore does provide us with a tool for understanding why the connection between schools and society in Australia

remains minimal. In structural-functional terms, such a distancing maintains schools as essentially neutral institutions in a pluralistic society which has a political system split into competing interest groups—groups which reflect a variety of socio-economic and cultural groups.

But is the answer suggested here the only explanation? If one examines the literature by both political and social apologists from the three countries, as well as by other critical researchers, one finds a variety of other reasons; political, social and ideological to explain away the features examined. Communist theory is frequently used as an explanation on both sides of the iron curtain, as being the cause of the close connection between schools and society. Our "ideal-type" analysis here furnishes an alternative explanation and we are therefore prompted to separate between the two. Which one is closer to reality.?

Firstly, proposers of an "ideological causation" theory, such as Seymour Rosen (1971), oversimplify to a certain extent the nature of the relationship between ideology and society. One could just as well claim that social organisation and its demand led to the adoption and modification of Communist ideology as practiced in Russia. Certainly, this would explain certain similarities between Tsarist and Communist theory and practice. However, to dwell too long on such "sociological determinism" is probably just as counterproductive as the other.

Suffice it to say that the links between society and ideology are neither unitary nor one-way. As I have attempted to show, they are more complex than first apparent.

A second criticism, is that by selecting the three societies used as case studies, I was editing evidence to fit my theory. This is a valid point—it would be hard to find three examples which fit so nicely into the conceptual paradigm as these, but the reason for selection was neither so dishonest nor nefarious, but merely because these are the three educational systems with which I am most familiar. Rather than inductively commencing with the model and thence proceeding to examine the case studies for its confirmation or refutation, I could have commenced with the examples and deductively produced the model by comparison and contrast. Nevertheless, this criticism remains and I feel, constitutes a flaw in the "Beredayan" hypothesis creation and problem solving approach.

A third major criticism of the ideal-type, is that, like Talcott Parsons' model it is static, it does not explain in any way the mechanism of change. How does a cohesive society fragment, as happened in Revolutionary Russia or how does a fragmented society like Indonesia, achieve through education great cohesion? These are questions left unanswered as outside the capacity of this ideal-type analysis. As a static system its usefulness is confined to descriptions of societies at fixed points in time, not as the dynamically evolving complexes societies in fact are.

As such a descriptive tool, it could be extended to examine other features on the "social-school interface", for example vocational training, and again, if valid, one would expect a further confirmation of the facts described above.

Similarly, in using other societies, while possibly less divergent, one could also find like features.

From the above study, one sees that, to a certain extent, the labels "non-formal" or "out of school" education lose much of their relevance. They are revealed to be concepts only meaningful in societies where there is little attempt to bring such forms into coherence with the objectives of schooling in general or with the goals of society at large, as the comparison with Australia and the U.S.S.R. indicates.

Finally, we must emphasise that science and comparative education as a part of that science cannot ever be value free. David and Vera Mace commented on the problem of trying to write objective sociology on the Russian family, without being influenced by political or ideological bias. Certainly to me, reading Bereday (Bereday and Pennar, 1960) and Rosen (1971) for example I am aware of their polemical but veiled attack on Soviet theory and practice as "undemocratic".

Nevertheless, given the consensual cohesive basis of Soviet society, using the way in which "collectives" are organised, one could produce a good non-Marxist analysis showing that Soviet education was possibly more democratic than that in the west.

As said above, value free comparative education is a myth, and so, to be intellectually honest, I suppose I should reveal my bias, this being so, perhaps a fitting conclusion to this study is that of the UNESCO Commission on the Development of Education, which, in its report "Learning to be" (Faure, 1974) said "For many generations the sole purpose of education was to transmit values, knowledge and skills which the adult world recommended or forced on young people in order to incorporate them into society; hence education could be wholly included in the state's duties towards its citizens, the schoolmasters' transmission of knowledge to his pupils and the child's relationship with its parents in the family.

The present day world no longer warrants this confidence of a bygone age. If it be our hope at once to fulfil the promise of democracy and to establish man firmly in the scientific and technical revolutions, both now and in the future, education cannot be entrenched within any particular social classes or age groups, or be divided up into independent levels or streams; nor can it be reduced to a mere matter of State Grants and family traditions. It must ensure a constant exchange of ideas between a man and his social environment, and offer to everyone the opportunities of the learning society. This age, which Valery called that of the finite world, can but be that of the complete man." (Faure, 1974).

If in some small way this analysis has contributed to an understanding and furthering of that noble ideal, then I feel that it will have proved of value.

References

- BEREDAY, G.Z.F., and PENNAR, Joan, *The Politics of Soviet Education*, New York: Praeger University Series, 1960.
BEREDAY, G.Z.F., BRINCKMAN, W.W. and REED, G.H. *The Changing Soviet School*: Houghton Cambridge (Mass.) 1960.

- BEREDAY, G.Z.F., "Reflections on Comparative Methodology in Education" in *Comp. Ed.* June, 1967, pp. 169-187.
BEREDAY, G.Z.F., "Comparative Method in Education," 1964.
BIRDIE, R.F., *Manpower and the Schools*, Melbourne, A.C.E.R., 1956.
COOMBS, P.H., *The World Educational Crisis: A Systems Analysis*, Oxford University Press, 1968.
COOMBS P.H., and AHMED, Manzoor, *Attacking Rural Poverty*, I.C.E.D., Report, 1974.
COOMBS P.H. and AHMED, Mansoor, *Education for Rural Education Development; Case Studies for Planners* Praeger, NY, 1975.
CROFT John D. "An Evaluation of Non-Formal Education in Indonesia", (unpublished paper. London University Institute of Education, December, 1976).
CROUCH, H., *Military Politics under Indonesia's New Order* in *Pacific Affairs*, Vol. 45, 1972, pp. 206-218.
CUNNINGHAM, C.E., "Village Indonesia", in *Koenjaramingrat*, New York: Cornell University Press, 1967.
DAVIES, A.F., and ENCELL, S., (Eds). *Australian Society: A Sociological Introduction*, 1st Edition, 1967.
DOUGLAS, S.A., *Political Socialization and Student Activism in Indonesia*, 1968.
ENCEL, S., and DAVIES, A.F., *Australian Society*, Second Edition, Cheshire, 1970.
FAURE, E., (Chairman) *Learning to Be*, Paris: Unesco, 1974.
FEITH, H., and CASTLES R., (Eds). *Indonesian Political Thinking 1945-1965* pp. 69-347.
FITZGERALD, R.T., *The Secondary School at Sixes and Sevens, A Review of the Sixties and Prospects of the Seventies*, Melbourne: A.C.E.R., 1970.
FITZPATRICK, S., *The Commissariat of Enlightenment: Soviet Organisation of Education and the Arts under Lunarcharsky*. Cambridge University Press, 1971.
GRANT, N., *Soviet Education*, Harmondsworth: Penguin, 1964.
GEZI, Kalit I. (Ed). *Education in Comparative and International Perspective*; New York: Holt Reinhard and Winston, 1971.
HARBISON, F.H., *Human Resources as the Wealth of Nations*, Oxford University Press, 1973.
HING, Lee Kam, *Schooling in Indonesia: Trends in Development and Issues of Controversy, 1945-1965*.
HIRST, P.W., and PETERS, R.S., *The Concept of Education*, New York: Routledge and Kegan Paul, 1967.
HOLMES, B., *Introduction to Education within Industry*, World Year Book in Education, 1968.
HORNE, D., *The Lucky Country*, Sydney: Angus and Robertson, 1963.
HUIZER, G., *Peasant Mobilization and Land Reform in Indonesia*, Institute of Social Studies, Netherlands.
JONES, P.E., *Education in Australia*, Archon World Ed. Series, 1974.
Indonesian Ministry of Education and Culture, *Indonesian Education Sector Review*. Report of the BPK, 1976.

- KAZAMIAS, A.M., "Some Old and New Approaches to Methodology in Comparative Education", in *Comparative Education Review*, October, 1961, quotes C. Arnold Anderson.
- KOHLER, G., "Sekolah Pambangan: An Indonesian Experiment" in *Comparative Education*, Vol. 9, No. 3, October 1973,
- LANE, D., *The End of Inequality?* Harmondsworth, Penguin Education, 1971.
- LAUGLO, Dr. "Education and Cultural Pluralism" Lecture at Institute of Education, University of London, 8.2.77.
- LIDDLE, William (Ed). *Political Participation in Modern Independence*, Connecticut, Yale Uni. Press South East Asia Studies 1973.
- MACE, D. and V., *The Soviet Family*, London: Hutchinson, 1964.
- McLAREN, J., *Our Troubled Schools*, Melbourne: Cheshire, 1968.
- McVEY, R.T., *The Rise of Indonesian Communism*, Cornell University Press, 1958.
- MORTIMER, R., (Ed). *Showcase State: The Illusion of Indonesia's Accelerated Modernization*, Sydney: Angus and Robertson, 1973.
- PARSONS, T., *The Social System*, Free Press: Glencoe Illinois, 1951. Also good for critique of Parson's failings see C. Wright Mills *The Sociological Imagination*, Harmondsworth: Penguin, 1970.
- PELZER, K.J., and McVEY, R.T., Preface in Ruth & McVey, *Indonesia*, Connecticut, Yale University, South East Asian Studies, 1963.
- ROSEN, S.M., *Education and Modernization in the U.S.S.R.*, Cambridge (Mass): Addison Wesley, 1971.
- SMELSER, N., and PARSONS, T., In J.L. Finkle and R.W. Gable, *Political Development and Social Change*, also in Don Adams and Robert M. Bjork *Education in Developing Countries*, Chapter 1., (1966).
- SOEJONO, Ag., *Aliran Baru dalam Pendidikan dan Pengajaran*, Djakarta: Indonesian Govt. Printers, undated.
- TOMIAK, J.J., *Soviet Education*, Archon World Ed. Series.
- UNESCO Statistical Yearbook, 1974.
- UNESCO *Education Innovation in Indonesia*, Paris, 1974.
- Van der KROEF, Justus, "Social Dysfunction of Indonesian Education" in *Comparative Education Review*, October, 1959.
- WEBER, M., in A. & E. Atzoni (Eds). "*Social Change*", New York, Basic Books, 1974.
- WOODHOUSE, S.J., and LUBIS, A.H., "Indonesia: A Comprehensive Locally Initiated Youth Programme" in Manzoor Ahmed & Phillip H. Coombs, *Education for Rural Development: Case Studies for Planners*, Praeger, U.S.A., 1975.
- World Bank "Education Sector Working Paper" 1974.

Student Teacher Performance Related to Cognitive Style

Brian Noad
Townsville College of Advanced Education

Abstract

Research conducted in the field of cognitive style suggests there are certain learning styles which can be identified, defined and measured. However, the literature points out that a neglected aspect of research is an exploration of relationships between students' cognitive styles and performance. The goal of this study was to explore whether the cognitive style manner of reasoning scales were jointly and differentially, related to student teachers' academic performance. The sample consisted of 40 primary school student teachers enrolled in the second year of the Diploma in Teaching course at the Townsville College of Advanced Education, Townsville, Queensland. Data was gathered by the Hill Cognitive Style Mapping instrument. Student teacher scores on an academic task were used to measure performance. The data were analysed by multiple and stepwise regression techniques. Results of the study were that: (a) cognitive style manner of reasoning scales, operating jointly, contributed 30.9% of the variance in student teacher academic performance and (b) cognitive style manner of reasoning scales — relationships, categorical and appraisal, operating differentially, accounted for 9.8%, 9.1% and 8.7% respectively, of the variance in student teacher academic performance. Results were statistically significant at the .05 level.

The increasing concern with both the disadvantaged learning student and matching student's learning styles with instruction has stimulated research into cognitive style. Cognitive styles are ways learners process information which comes from either outside or inside themselves (Witkin & Moore, 1974).

Research conducted in the field of cognitive style suggests there are certain styles which can be identified, defined and measured (Jones & Berneman, 1977). Moreover, Sigel and Coop (1974) posit that cognitive style relates to performance on academic tasks. If students' preferred learning styles are matched with instructional tasks effective student learning should be facilitated. This infers that teachers should draw on a repertoire of strategies to match the learning preferences of students with instructional tasks.

A theoretical framework around which cognitive style could be conceptualised, and this study designed, was provided by Joseph Hill of Oakland Community College in Michigan, U.S.A. (Hill, n.d.). Hill conceptualised cognitive style as being composed of four interacting elements: symbols and meaning; cultural determinants of meaning and symbols' modalities of inference; and neurological, electrochemical and biochemical aspects of memory functions. Cognitive style mapping (CSM) is an important component of the Hill model. CSM is a diagnostic technique