Closing the Gap: Gap? What Gap?
Nuggets

extracted from an expedition resulting in an essay now entitled
Problems with "Closing the Gap" Philosophy and Research
and 60 years in educational research.

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Abstract

This "article" consists mainly of "nuggets" (or insights) extracted or emerging in the course of preparing a long essay currently entitled *Problems with "Closing the Gap" Philosophy and Research,* a modified version of which was recently published in the *Baltic Humanitarian Journal,* Vol 3, p 252-275 and available via the link:
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Key Words

Systems roots of gross deficits in educational system. Deficiencies in educational research. Reductionist science. Comprehensive Evaluation. Educational Olympics. Policy-based evidence. Home environments. Mothering. Ability. Diversity. Multiple Talents. Competence. Assessment. Learning. Growth. Developmental Environments. Emergence. Fascism. Governance. Targets. Systems Laws. Senseless work. Social Hierarchy. Social forces.

Introduction

The *Call for Papers* for a special issue of *Educational and Child Psychology* to be concerned with "Closing the Gap" prompted me set out to update and extend a *Note* I had written 35 years earlier for the *Comments* section of *The American Psychologist* to challenge the main assumptions of two authors who had published an article entitled *Closing the Gap*.

Doing this proved much more difficult and time consuming than expected – and it resulted in a 30,000 word essay … much too long for *Educational and Child Psychology*.

However, having been shocked by so many of things I had stumbled upon, or, more importantly, had *failed* to find, in the literature, I then felt obliged to simply make a list of some of my observations because they were either dispersed through the essay or not actually made explicit in it.

This "article" is a version of that list.

I have called them "nuggets" because a nugget is unrefined, crude, and only of value to those who are already attuned to its potential significance. By the same token, the statements below are often over-stated and unqualified and, to be appreciated, really need to be interpreted in the context of the full essay available via the link above.

The nuggets are numbered sequentially to simplify subsequent discussion as are exhibits from an expedition, but they are otherwise not listed in any particular order.

The Nuggets

1) Only a minute fraction of the literature dealing with ways of ameliorating what are widely perceived to be the main problems of the educational system relates to the goals that most parents, teachers, pupils and employers agree to be the system's main goals. These include (i) nurturing high-level qualities like initiative, self-confidence, persistence, problem solving ability and ability to contribute to society and (ii), (more importantly) nurturing and recognising the diverse talents pupils possess.

2) It is not only researchers who neglect these goals: Most teachers make little attempt to reach them. So it would seem likely that the sources of the conspicuous problems of the educational system are to be found in this inability of the system to perform its basic functions – viz. to nurture and recognise the wide variety of alternative high-level competencies pupils have the potential to develop.

3) Very little of the research purporting to contribute to our understanding of how to promote school effectiveness or assess the effectiveness of experimental programmes or general policies makes so much as a mention of these goals. These studies are therefore not merely misleading; they are unethical. They not only divert attention away from the main goals of education but discredit educational programmes and policies which are, in reality, highly successful when viewed from this wider perspective. Worse, by not revealing the damage done by programmes which may be highly successful when judged narrowly these researchers allow those destructive programmes to roll on in an unfettered way.

4) The observations made in the last paragraph prompt the question of how professional the work of many researchers can be considered to be.

5) Most researches are preoccupied with "ability" as assessed via traditional school examinations. Yet, among young people leaving the educational system at similar

ages, scores on these tests fail to predict things like occupational performance … or anything else of significance.

6) In contrast, general cognitive ability test scores not only strongly predict level of job attained and retained but, when compared with the ability levels typical of the socio-economic status (SES) groups into which people were born, both upward *and downward* social mobility.

7) The manifold implications of the second half of this observation – and, in particular, its implications for the need to cater for the needs of a cross-section of the population and not just the "more academic" – have, to all intents and purposes, been ignored.

8) Similarly ignored are the implications for the widely held view that "Background accounts for (almost) everything". (How come that all these young people coming from backgrounds in which they could be expected to have had every advantage are headed for such low-status positions in society?)

9) Despite the tens of thousands of studies which purport to show otherwise, the vast majority of "remedial" and "enrichment" programmes, whether home- or school-based, have little long term effect on either educational attainment or ability test scores.

10) There is, to all intents and purposes, *no* evidence to support the widespread declarative claim that "the early years are of overwhelming importance" – and still less for the claim that it is important to start school as soon as possible.

11) Likewise, notwithstanding dramatic exceptions, there is virtually no evidence to support the claim that home or school intervention programmes, including remedial reading programmes, are effective. The tens of thousands of studies which claim to show otherwise are either seriously methodologically defective or logically flawed – and the most widely cited studies in both areas do not bear critical examination.

12) The role of home background has been vastly over-rated. Both the status variability between adult brothers and the variance in general cognitive ability between children from the same family amount to more than 60% of total population variability in these things. Both observations highlight the need for a critical appraisal of the strengths of the claims commonly made about the importance of home background.

13) The above findings dealing with the significance of general cognitive ability are replicated in studies relating to values. There is wide variance in the motives and values of children coming from similar backgrounds and the variance in children's values tells us more about where they are going to than where they came from. Strikingly, however, it is only when it becomes obvious that attempts to influence parents' child-rearing behaviour with a view to increasing their children's ability test scores means influencing their values that the intrusive, value-laden, nature of these interventions becomes fully apparent.

14) Some almost unimaginably disturbed (home) environments have dramatic effects on such things as children's – and the adults-those-children-will-become's – involvement in serious criminal activity. Consideration of what might be done about this unfortunately takes us into domains which only fools and angels dare to enter because they lead to suggestions which are politically, socially, and perhaps even ethically, unacceptable.

15) There are virtually no studies of "mothering" behaviour in all its manifold complexity, still less of the way in which mothering behaviours vary with SES, and even fewer of

the differential reciprocal effects of this variance on different children who (it turns out) themselves vary greatly in their values and patterns of competence in ways which are not, so far as we can tell, attributable to variance in their parental behaviour.

16) A radical change in methodology would be required to study the complex reciprocal interactions which occur between parents and children and between those parents and children on the one hand and the networks of others with whom they interact in homes, schools, and communities on the other.

17) It is not true that, in general, working class parents fail to stimulate their children, fail to talk to them, or fail to try to promote their development. Nevertheless, the ends they pursue via these activities can be strikingly different from the ends that middle class bureaucrats – and prescriptive manual writers in particular – may wish them to pursue (and may, indeed, pursue with their own children). On the other hand, it *is* true that they may be prevented from undertaking these activities by constraints in the environments in which they live. Under these circumstances it is unethical to subject them to threats of having their children taken away from them for failing to comply with bureaucrats' prescriptions relating to their behaviour or to send them on compulsory "parent-education" courses. These tend to conflict with their values and the ends they wish to pursue in child-rearing and are often experienced as punitive.

18) About one third of pupils are seriously damaged by the "educational" system. This is conveniently ignored by those generating prescriptive policies which, for example, require compulsory school attendance.

19) The norm-referenced nature of the testing carried out in schools is continuously overlooked by both administrators and researchers so that, for example, policies which are promoted as enhancing achievement in fact necessarily confirm half the pupils … and most seriously one third of them … as failures.

20) There is a failure to challenge the "neo-liberal" – which is actually a misnomer because it existed long before "neo-liberalism – assertion that people are to be motivated through selection, competition, testing, and targets rather than by creating situations in which they are able to develop, utilise, and get recognition for their talents.

21) There are very few studies of the ways in which some parents, teachers, and managers successfully promote the development of a wide variety of talents, and still less of how these multiple talents are sometimes harnessed to create climates of enterprise or intelligence.

22) There is no discussion of the ways in which emergent talents or competencies are dependent on the emergent nature of their contexts or the co-creative nature of this process.

23) Virtually all discussions are focussed on promoting "ability" rather than multiple talents.

24) The significance of the fact that, in general, verbalised knowledge has a half-life of a year (meaning that people forget 50% after 1 year, 75% after two, 82.5% after 3, and so on) is generally overlooked. The tiny snippets of (temporary) knowledge communicated to children by schools are generally out of date when taught, do not relate to students' needs, and are forgotten by the time they are needed. In short, knowledge-based education is a waste of time - and the students know it. Thus only the (norm-referenced) certificate is important.

25) The implication of the above – namely that, if one is indeed interested in education, it is imperative to move from a focus on content to a focus on competence – is nowhere articulated.

26) There is no generally agreed way of giving teachers or pupils credit for achieving the wider – actually the main – goals of education. More specifically, there are no good measures of such outcomes … nor could there be without a paradigm shift in the way we think about, and seek to assess, abilities and talents.

27) "Teaching" is overwhelmingly understood to mean "telling" rather than "facilitating growth".

28) Likewise the word "learning" is overwhelmingly used to refer to the processes whereby a temporary mastery of snippets of verbalised knowledge is acquired … although it could indeed be used to encompass learning *to do* – learning to learn from the effects of one's actions, learning to lead, learning to put people at ease, learning to adventure into the unknown, and so on.

29) Most discussions of the assessment of "learning" entirely neglect the problems inherent in trying to assess the most important knowledge of all, namely high-level, idiosyncratic, tacit knowledge.

30) The emphasis on the importance of personal motivational dispositions as a crucial ingredient of competence is almost entirely overlooked in discussions cantering on "knowledge, skills, and attitudes".

31) *In*competence (among parents, teachers, and others) is widely attributed to a lack of techno-rational knowledge – which, it is assumed, it will be possible to rectify by making it compulsory to attend compulsory techno-rational knowledge based "training" programmes, follow prescriptions laid down in 600 page Manuals, and submit to regular tick-box based or judgmental inspections. In reality, incompetence chiefly arises from situational constraints, absence of appropriate motivation, or pursuit of goals less aligned with, indeed tangential to, those of the system.

32) There is virtually no mention of the work that has been done on the nature, development, and assessment of competence – let alone recognition of the crucial need for more work in the area.

33) There is, in particular, little evidence of any understanding of the nature of developmental environments.

34) Words like self-confidence, creativity, determination, and the "ability to persuade", not to mention "the ability to learn" or "the ability to think", are used uncritically as if they were *general,* pervasive, dispositions which people possess in different quantities – i.e. like height or body weight. In reality, these dispositions only *exist* when the individual is undertaking activities her or she cares about … e.g. "self-confidence" in relation to school examinations, in relation to winning physical fights, or in relation to making a success of running a business. "Thinking" in relation to items on a psychological test or as revealed whilst crafting a sculpture or placing a punch or evolving a painting? The use of such words should always be qualified: "Learning *what*?" "Ability to think *about what?*"

35) As Spearman put it: "The question is not 'How well can he think?' but 'What does he tend to think *about*?'"

36) Likewise, children are always learning *something.* The only question is "What?"

37) High-level competencies always have complex cognitive, affective, and conative components which only come into play when the individual is engaged in activities he or she is strongly intrinsically motivated to undertake.

38) "Cognitive ability" is itself primarily affective and conative.

39) Policies are generated by those who have done well in the "educational" system and have no experience of what it is like to be one of the "failures".

40) Most claims and policies are grounded in mythologies which circulate around an international network of middle-class, self-serving, professionals who are only too ready to generate laws and manuals prescribing what others shall do … and without consideration of the damage which fulfilment of those prescriptions inflict on those concerned or society more generally.

41) Most policy-makers' claims to be implementing evidence-based policy are fraudulent – because the research they cite has in fact been produced via a process which results in its opposite: the compilation of policy-based evidence. This arises from a funding process which largely precludes funding or publication of research which might support alternative viewpoints and it is reinforced through the "peer review" process which operates to eliminate research which challenges the reviewers' careers.

42) The vast international studies conducted by such organisations as the IEA and PISA are entirely misleading because the processes used to develop and select the tests that are deployed *preclude* them from throwing light on the very issues it was claimed they would illuminate when funding was being sought/promoted. They have to *exclude* items which might reflect the idiosyncratic outcomes of particular programmes in order to satisfy *Item Response Theory* requirements of scalability in *all* countries … otherwise they could not be used for the international comparisons deemed necessary.

43) Far from helping the system achieve its goals, the resulting international Educational Olympics has contributed enormously to the corruption of the educational system by forcing it to concentrate on the narrow, the common, and that which is "measurable" using the available Item Response Theory based tests. Combined with the ever greater centralisation and specification of curricula and the manualisation of teaching this Olympics has, as part of a recursive process, at every level in the system, fuelled the onward march of hierarchal division between pupils within and between schools.

44) Such an approach makes it impossible to demonstrate that different pupils develop or are damaged in different ways in "the same" environment, still less that, when interacting with different others, they further develop their idiosyncratic perceptions, talents, abilities, and disabilities.

45) The evidence of a herd mentality, a tendency to prescribe what is good for others … and to persecute and imprison those who do not comply … i.e. of a disposition toward fascism … is pervasive. The authoritarianism and contempt for people who do not share their values and prejudices revealed in bureaucrats' prescriptions (emerging as government-backed mandates bringing with them the threat of criminalisation) for what everyone shall do [e.g. GIRFEC ("Getting it Right for Every Child")] are nothing short of hair-raising.

46) There is little appreciation of the importance of *comprehensive* evaluation – the importance of getting a rough fix on *all* the important effects of a policy, programme, or intervention: *All* intended and unintended, desired and desirable, short and long term, personal and social effects need to be evaluated – and the nature of the

programme or intervention must itself be critically examined if the study is to be considered scientific. The effects of an intervention may be desirable in some ways for some people but seriously undesirable for others. What has beneficial effects in the short term may have detrimental effects in the longer term. What is good for some individuals in the short term may be bad for others in the long term. What are taken to be the main components of a policy or intervention may be accompanied by other overlooked components … e.g. it may be necessary to make other adjustments to get the intervention or policy in place and these may have effects every bit as important as those stemming from what are taken to be the main components of the programme or policy.

47) Such observations may appear to be of purely academic interest. But this is far from the case. Failure to study these things results in data sets which are not merely misleading; they verge on the criminal since some (many) people may be (are) seriously damaged as a result.

48) In reality, what is being said here has even deeper significance. On the one hand, it challenges the continued acceptance of reductionist science: viz. the legitimacy of scientists attempting to study the relationship between one variable and another while ignoring all other correlated inputs and outcomes. Perhaps the clearest illustrations of the illegitimacy of this process come from studies of pesticides where the effects may go far beyond immediate crop yields but permeate the food chain and thence back to the fertility of the soils and future crop yields. More generally acceptance of reductionist science undermines the importance of *systems* thinking. Once one looks at the extant situation through appropriate spectacles, one cannot help noticing the paucity of systems thinking in educational research. Thus, for example, one finds researchers justifying so-called remedial programmes in terms of the supposed long term cost savings to society whilst failing to acknowledge that the provision of remedial classes is a norm-referenced phenomenon such that the classrooms will not remain empty but become filled with an alternative set of pupils deemed to be in need of special care. Time and again, as inevitably follows from the laws of systems science, single-factor interventions in the system have counterintuitive and counterproductive effects. Raising school leaving ages in an effort to ensure all pupils get jobs simply leads employers to demand higher entry qualifications without there being any change in the competencies actually required in the workplace.

49) A specific and recurrent example of failure to appreciate the need for comprehensive evaluation comes from the widespread willingness of researchers to employ what is best described as an arbitrary selection of off-the-shelf measures in their studies. The chosen measures do not cover the range of outcomes … desired and desirable, undesired and undesirable etc. … which an examination of the programme would lead one to expect. What is more, the measures that are chosen typically lack construct validity: for example, the "science" tests do not measure scientific competence; the measures of "self-confidence" by no means assess whatever one might expect such a term to imply. More specifically, in a typical situation such a selection of off-the-shelf measures is unable to register either the developmental benefits delivered by any carefully designed educational programme or the harm done by others.

50) Specific, but massive, examples of such narrow, unjustifiable, unscientific, unethical and deeply destructive evaluations are to be found in the tens of thousands of studies of "school effectiveness" brought together by such authors as John Hattie and Herb Walberg and those currently being conducted on a worldwide scale by PISA.

51) In addition to calling into question the widespread unthinking adoption of reductionist science my review also calls into question the most widely accepted image of how scientific understanding is to be advanced. This image asserts that the way to proceed is to review the literature and to make minor adjustments these procedures using the tools that are already there. It would be too much to expect most researchers to set out to challenge that literature. But what might be expected would be that more project and programme evaluators would examine the actual nature of the programmes or interventions there are setting out to study and their probable effects (both desired and undesired etc.) and then find, or develop, measures suited to the task of documenting them. Unfortunately, as I know only too well, adoption of this approach leads editors to be reluctant to publish the results by citing such things as "inadequate literature review"; "inadequately validated measures".

52) The evidence of pervasive scientific incompetence … the tendency to attribute causal relationships to correlations, the failure to submit those inferences to empirical test, the lack of critical thinking, the addiction to reductionist science, the absence of comprehensive evaluation, the tendency to be swayed by popular received opinion and produce studies "designed" to confirm that wisdom and the views of politicians and bureaucrats … is pervasive and deeply shocking.

53) Belief that the setting of targets and standards will improve things is rife. In short, there is no evidence of awareness of the systems law that the setting of quantitative targets *invariably and necessarily* directs attention away from the goals of the system, nurtures the tendency to undermine the system by finding ways of reaching the targets whilst failing to perform the intended activities, discourages professionalism, and by creating pressure and removing time for reflection, discourages learning from the effects of action.

54) Teachers teach, and pupils and students work, toward the goals that are assessed and neglect the wider goals of the system. But the implication is not that progress toward these wider goals should be assessed (so doing would only fill everyone's days with more senseless work filling up forms), but to move away from trying to hold people accountable for meeting standards laid down by authorities. Instead, we need to hold them accountable for doing such things as acting in a professional manner … which implies acting in the long term public interest and doing different things in different circumstances.

55) While it is indeed true that laws, for example relating to school attendance and banking, were made by "men" and, as such, can be changed (with dramatic results), the extent to which they can be changed and, indeed the laws themselves, is/are primarily determined by deeper sociological laws. These deeper laws include what might be called "Bookchin's Law", namely that, in situations of excess labour, a network of social processes will fill the space with hierarchically-organised senseless work, which, while creating major benefits for some, creates conditions of destitution for others in such a way as to compel them to join the system. The system also generates a network of mythologies which serve to justify its existence – largely by claiming that it exists to serve the needs of the poor.

56) This mountain of work, while senseless in the sense of not delivering the benefits it claims and, on average, failing to increase quality of life, is consuming resources at an exponentially increasing rate and thus contributing to the destruction of the planet as we know it … carrying Homo Sapiens with it.

57) People's behaviour – whether politicians, teachers, administrators, parents or pupils – is overwhelmingly determined by the system itself and not by the laziness, incompetence, or other personal characteristics of practitioners. It follows that there is little point in shouting at politicians, teachers, or public servants. It is necessary to find ways of intervening in the system itself – a fact which is studiously ignored by most of those working in the area (in part because they, understandably, do not know how to do it).

58) The most serious defect of the so-called educational system is its inability to recognise, and cater for, *diversity.* Diversity in abilities, competencies, and values.

59) There are multiple and inter-related reasons for this. These multiple and inter-related reasons form a *system* in which the attempt to change any one part (e.g. curriculum) without changing others (e.g. examinations) is negated by the reactions of the rest of the system.

60) These multiple reasons include the fact that little is known about the nature, development, and assessment of competence. But the most serious are:

   a. "management" by a command-and-control governance system which fails to promote pervasive experimentation, comprehensive evaluation, and learning.

   b. A failure to come to terms with the sociological functions the "educational" system performs for society. These require it to contribute to the implementation, cementation, and legitimisation of hierarchy and to contribute to the creation of vast amounts of hierarchically-organised work which does little to deliver the claimed benefits and can therefore be characterised as senseless.

61) In fact, it emerges that schools are not fundamentally about education at all but about performing the sociological function identified at (b) above.

62) There is no recognition of the systems law that single-factor intervention in complex systems *invariably* has counterintuitive, and usually counterproductive, effects … and, more specifically, that systems react to negate the effects of single-factor interventions.

63) Conceptualising, mapping, and finding ways of intervening in the network of social forces controlling the operation of the system thus emerges as a crucial preliminary to any serious attempt to tackle the conspicuous and pervasive problems of the educational system.

64) Unfortunately, "no-one" recognises the need for this, still less believes that it could be done.

65) But this exactly parallels the situation in which Newton found himself in relation to conceptualising, measuring, mapping, and harnessing the physical forces that control the movement of physical objects from sailing boats to the planets. Not only was there no "demand" for these developments, the few who realised it needed to be done thought that it could not be done. (Even Newton himself believed this before he sat down and did it.)

66) Surprisingly, therefore, it emerges that the place to begin to tackle the inter-related problems of the educational system is far removed from the symptoms: It is to contribute to the emergence of institutional arrangements which will support the work of heretics and mavericks. This cannot be done in the context of current beliefs about how research should be funded and evaluated.