

## Impact of Coaching: Are parents buying hope or help?

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## What do we know about coaching?

- Coaching is
  - Expensive
  - Time-consuming
- Coaching involves sacrifices by both parents and students
- Coaching has not been demonstrated to be effective

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## Why study coaching?

- Coaching is a multi-billion dollar industry
- There is no requirement for government accreditation of coaching colleges in Australia
- In 2001, there were 575 listings of educational consultants and coaching colleges in the Yellow Pages for Metropolitan Sydney alone

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## The Coaching Boom

Year	Listings in Yellow Pages	Year	Coaching Companies	Number of Branches
1980	56	1980	3	3 each
1985	79	1985	4	2 each
1990	155	1990	4	2-4
1995	195	1995	5	2-8
2001	575	2001	24	2-57

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## Who is getting rich?

Year	Coaching Companies	Branches
1995	Kip McGrath	8
2001		57
1995	Kumon	4
2001		28

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## Other Players

Coaching Colleges	Branches
Master Coaching	36
James An	22
ACE Learning Centres	14
'A' 4 Maths	11
Action Coaching	9
Action Home Tuition	6

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## Research on Coaching – Overseas Data

- Four major reviews
- All American
- All assessing effect of coaching on SAT and SAT1 outcomes

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## Effects of coaching in test-taking skills on competitive aptitude tests

- Both coached and un-coached college entrance students were equally likely to show either no improvement or deterioration in performance on the SAT on the second attempt
- Mathematics components are more susceptible to coaching than the verbal components of the SAT (e.g. Smyth, 1989; 1990).
- Only one study has examined the effects of coaching on selection tests for younger students (11+ examination)
- Coached students performed significantly better than uncoached students and the "effects of coaching far outweighed the effects of ability..."

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## Coached students are:

- Asian
- High achievers
- Have tertiary educational aspirations
- Place very high importance on doing well
- Often report that previous performance was a serious underestimate of their true ability

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## Outcomes of coaching

- Combined results indicate that the effect sizes after coaching are, for:
  - Achievement tests = .1 (ES of .1=3-4 percentiles)
  - Tests of test-taking skills = .71
  - Anxiety and Self-Esteem = .44
- **Higher scores on tests of test-taking skills are not associated with higher scores on achievement tests**

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## Who benefits from coaching?

- Low ability students demonstrate larger gains (.2 SD) from coaching compared with high ability students (.06 SD)
- Gains made by coached students vary according to initial test scores (low initial scorers make higher gains)



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## Research on Coaching – Australian data

- **Kenny and Faunce (2004) is the only published Australian study**
- There have been no other studies internationally on the effects of academic subject coaching on criterion (school-based) tests of academic achievement
- The aim of my study was to examine these effects, together with the impact of coaching on selection tests

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## Research on Coaching – Australian data

- **One unpublished study conducted by Kenny and Stone (2000)**
  - n=23 students on full and half scholarships in year 8 of secondary school at MLC, Burwood, NSW
  - 14/23 students had received coaching

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## Results



- **Coaching did not predict the type of scholarship awarded (full or half)**
- **Ethnicity predicted scholarship type (Asian students were awarded 9/10 full scholarships)**
- **There was no difference between coached and un-coached students on aggregate mark in end of year exams**

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## Results (cont)



- Those on full scholarships performed better in English and Maths but not Science or overall aggregate compared with students on half scholarship

BUT

- **Coached students did no better than un-coached students**

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## Results (cont)



- **Students coached in English did no better than those students not coached in English**
- **Students coached in Maths did no better than those students not coached in Maths**

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## Need for more research

- These results were intriguing and an expanded study was designed to include all students from Years 4 –12 to assess whether coaching improved chances of
  - Entry to GT or OC classes
  - Entry to Selective High Schools
  - Award of academic scholarships for yrs 7-12
  - Higher UAI



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## Method

- Students completed questionnaires with the support of teachers during class time.
- Parallel questionnaires were sent home for parents to complete. It included questions on:
  - attitudes and practices related to coaching
  - the coaching histories of their children
  - whether children had been awarded full or half scholarships, entry to the GT class or Selective High School

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## Method (cont)

- Responses to coaching experiences were compared with
  - scholastic achievement of students,
  - award and non-award of scholarships, and
  - gifted class and school placement offers

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## Coaching history

Q? Do students who have been coached at any time in their schooling perform better or worse academically than students who have not been coached at any stage of their schooling?

Ans: There were no significant differences between coached and un-coached students

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## Subject specific coaching

- Q? Does coaching improve grades in English, mathematics or science?
- Ans: No differences in English, mathematics, or science were significant between coached and un-coached students



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## Coaching by academic year



- No significant differences were found between coached and un-coached students in individual academic years between Years 7 - 12; that is, students' academic performance could not be distinguished on the basis of whether they had been coached or not

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## Intensity of coaching

- High doses of coaching were compared to low doses of coaching in English, mathematics and science
- A total index of coaching intensity was calculated by adding the individual intensity indices for English, mathematics, and science coaching



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## Intensity of coaching cont

- High intensity coaching did not provide added benefits over low intensity coaching, and
- Very few of the outcome measures differed significantly from students who had received no coaching of any kind

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## Reasons for being coached

- To get into an Opportunity C (OC) or Gifted and Talented (GT)
- To gain a scholarship in Year 6
- To gain entry into a selective high school
- To help with their school work
- To get a high University Admission Index

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## Effects of coaching on reasons for being coached

- Coaching for school work and UAI performed worse than uncoached students
- Coaching for scholarship and selective entry performed better



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## Effects of coaching on reasons for being coached

- Effects were explained by IQ
- Students attempting scholarship examinations and examinations for entry into classes for the Gifted and Talented and selective high schools had significantly higher IQs than students not attempting such examinations



## Effect of enjoyment of coaching on academic performance

- Students who enjoyed coaching performed significantly better than those who did not enjoy coaching in Year 10 mathematics and Year 11 averaged total scores
- No other differences were significant

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## Scholarship students

Coached scholarship holders did not perform differently from un-coached scholarship holders on any of the academic measures in any academic year after controlling for IQ

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## Effects of coaching on success on scholarship examinations

- Although both coaching and Asian ethnicity independently predicted award of scholarship, when the effect of IQ was added, neither coaching nor ethnicity added any further weight to the prediction over that provided by IQ

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## Effects of coaching on success in entrance examinations

- Ethnicity was not predictive either independently or in combination with other factors
- Coaching independently contributed but when IQ was added, coaching was no longer significant
- The most robust predictor was again IQ



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## Entrance examination to class for the gifted and talented

- IQ and coaching but not Asian ethnicity were strong, independent predictors of offer of a place in a class for the Gifted and Talented.
- IQ was a stronger predictor than coaching

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## Conclusions

- Academic coaching in school subjects at the secondary school level to improve performance in end-of-year examinations in English, mathematics or science is generally ineffective for students who attend an educational institution with high teaching standards

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## Conclusions

- Coached students had significantly higher IQs than students who were not coached
- Students who had coaching for competitive entrance examinations had significantly higher IQs than students who were not coached for these examinations

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## Conclusions

- There was no dose response effect for coaching in any of the three academic subjects assessed



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## Conclusions



- Senior students who enjoyed coaching performed better on some academic measures than coached students who did not enjoy their coaching
- Enjoyment may be an index of motivation, interest or volition
- Future studies will need to 'unpack' this association

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## Conclusions

- LOTE students generally and Asian students in particular, consistently outperformed English language students on a significant number of the academic outcome measures



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## Conclusions

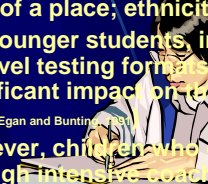
- IQ remained the best predictor of academic performance, with the association becoming stronger in the senior years of secondary school



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## Entry to a class for the gifted and talented

- Coaching and IQ independently predicted offer of a place; ethnicity did not
- For younger students, intensive coaching in novel testing formats can exert a significant impact on the outcome of the test (Egan and Bunting)
- However, children who gain places through intensive coaching are 'misplaced' and often cannot cope with the pace of instruction in a gifted class



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## Cautions



- It is possible that the effects of very good coaching, however defined, may have been lost when combined with poor or inappropriate coaching
- Subsequent studies will need to define, address and control for the adequacy of the coaching received by students

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