

# **Dual Enrollment and International Baccalaureate: Expanding Effective Programming Options for Secondary Gifted Students**

Scott J. Peters  
Rebecca L. Mann  
Gifted Education Resource Institute  
Purdue University

# Abstract

The International Baccalaureate and dual-enrollment programs are both options available for high-ability high school students. Their value lies in their potential to provide greater depth and breadth of curriculum than would otherwise be possible in public high school settings. This study surveyed school corporations in Indiana to determine the extent of dual-enrollment and International Baccalaureate offerings. All school corporations were surveyed with 87% reporting their practices. While the results show most schools provide some secondary high-ability services, the majority still take the form of Advanced Placement Programs with dual-enrollment and the International Baccalaureate becoming more and more popular.

# Format

- Theoretical framework
- Methods
- Participants
- Results
- Implications
- Limitations
- Next Step

# Theoretical Framework

- Acceleration
- Dual Enrollment
- International Baccalaureate

# Acceleration

- Create an ideal continuum of services
- Average effect size of accelerated students of .8 grade levels v. same ability, non-accelerated
- Social / emotional outcomes remain hard to measure
- Negative effects are mostly due to young students placed full-time with older students
- Little research exists on DE outcomes in the acceleration literature

# Dual Enrollment

- Concurrent enrollment, co-enrollment, dual credit
- Allow for a smoother continuum of learning for the advanced high school student, shortening the time necessary for an undergraduate degree, and generally expanding academic options (Fincher-Ford, 1997)
- Many are inexpensive, cost-efficient, and create a more realistic timeline of learning for some students

# Dual Enrollment Positives

- College or HS faculty can teach
- Possible to conduct via distance ed.
- Require few additional HS resources
- Post-secondary credits have no transfer issues (Indiana)

# Harnish & Lynch (2005)

- CTE DE students had to have high grades and test scores in traditional academic areas
- Student who might have achieved because of the DE courses were denied access
- As is suggested with all g/t identification, prerequisites or other methods of inclusion need to match programming



# Karp, Calcagno, Hughes, Jeong, & Bailey (2007)

- Studied DE outcomes in NY and FL
- Controlled for initial ability and performance
- Dual-enrollment students were 4.3% more likely to receive a high school diploma, 7.7% more likely to enroll in a college, and had significantly higher postsecondary grade point averages (.21 higher on average) than their peers

# International Baccalaureate

- IB programs exist in 126 countries and serve approximately 600,000 students from ages 3-19
- Program focuses on students as individuals and allows for a range of courses
- HS Diploma program has similar goals to DE
  - Currently 15 such programs in Indiana

# Poelzer and Feldhusen (1996)

- Compared high-level and subsidiary level IB course outcomes with regular HS classes of biology, chemistry, and physics
- Results showed IB students fared better in achievement regardless of type of IB course, even after taking initial achievement into account.

# Taylor & Porath (2006)

- Sought to determine IB graduates perceptions of the program work load, stress levels, and overall value of the experience
- Sixteen students believed they were better prepared for postsecondary education despite their feelings of being more stressed at times than non-IB students.

# Why were we interested?

- All Indiana public high schools required to offer at least 2 dual credit courses
- Courses are offered in the high school, not as dual enrollment courses at a community college or university
- Core 40 Diploma with Honors requires:
  - 4 credits of AP or IB or
  - 6 dual high school/college credits

The Indiana mandate is especially important for rural and minority students.

Nationally:

	Rural	Towns	Urban
AP courses	50%	72%	87%

	Low minority	High minority
Dual Credit	72-78%	58%

	Small	Medium	Large
Dual Credit	63%	75%	82%
AP	40%	82%	97%

# Research Questions

1. How prevalent are dual-enrollment and International Baccalaureate offerings in Indiana high schools?
2. How well do the offerings in Indiana match what is suggested in the research for secondary-student high-ability programming?
3. What, if any, barriers exist that prevent students from taking full advantage of dual-enrollment and International Baccalaureate programs?

# Participants

- Every public school corporation in Indiana was contacted (n=299) and asked to participate via an online or paper survey
- Corporation-level high-ability coordinators were the first point of contact, with counselors and other administrators as secondary contacts



# Survey Method

- Thirteen questions (4 open ended)
  - Paper or online version
- School corporation ID numbers were used as identifiers
- IRB not applicable

# Responses

- 130 in the first three weeks
  - A reminder e-mail was sent after three weeks
  - Second reminder after another two weeks
- 24 first paper mailing responses
  - Follow-up paper mailings were sent to secondary contacts from the web
- 222 corporations responded via the online survey and 38 via paper
- 260 total responses = 87% response rates

# Indiana District Demographics

Demographic type	Respondents	Non-respondents
Metropolitan	54% ( 20 )	46% ( 17 )
Suburban	89% ( 57 )	11% ( 7 )
Town	91% ( 29 )	9% ( 3 )
Rural	95% ( 154 )	5% ( 8 )
Unknown	0% ( 0 )	100% ( 4 )
Total	260	39

# Fixed Response Questions

Question	Yes	No	No Reply
High Ability Services?	92%	7%	1%
HS High Ability Coordinator?	39%	59%	2%
District High Ability Coordinator?	75%	23%	2%
Credit for HS courses taken in middle school?	78%	18%	4%
Credit for Talent Search or other off campus courses?	34%	63%	3%

# Fixed Response Questions

Question	Yes	No	No Reply
Dual Credit courses offered?	87%	10%	3%
Plans to offer new Dual Credit courses?	55%	39%	6%
Prerequisites to enroll in Dual Credit courses?	70%	22%	8%
IB program offered?	4%	89%	7%
Plans to begin IB?	8%	83%	9%

# Types of programs offered for high-ability high school students

Code	Responses
1. Advanced Placement	70% (182)
2. Honors, accelerated, or advanced classes	49% (128)
3. Dual-credit courses	38% (100)
4. Early graduation	3% (8)
5. Clubs, competitions, or other enrichment	11% (28)
6. International Baccalaureate	3% (8)
7. Independent study or mentorship	5% (12)
8. Classroom differentiation	3% (9)
9. Self-contained gifted courses	5% (13)

# Types of prerequisites for dual enrollment course enrollment

	Responses
Grades	28%
Completed coursework	23%
Standardized tests	14%
Recommendations	11%
College institution requirements	7%
Placement tests	4%
Multiple/various criteria	4%
Class standing	3%

# Positive Implications

- 92% offer gifted services in high school
- 75% (but still low) have corporation g/t coordinators
- 39% have high school g/t coordinators
- 55% & 8% plan to start or add to current DU and IB offerings



# Negative Implications

- 25% reported having no corporation g/t coordinator
- Most HS services take the form of AP
- Dual enrollment prerequisites

# Limitations

- Missing 39 school corporations
  - Metropolitan
- Self-report data
- Private schools were not included

# Next Step

- Indiana database for high school DE and IB offerings
- Longitudinal study of educational and occupational outcomes of DE and IB

Questions?

