Program Review: International Schools/Dual-Language Immersion

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1. Descriptive Analysis
   - Logic model
   - Description of program
   - Demographics of students served/equity analysis

2. Implementation Analysis
   - Implementation fidelity
   - Stakeholder feedback and perceptions
   - Cost summary

3. Impact Analysis
   - Descriptive outcomes
   - Impact analysis
Data Sources

- Student-level data analyses
- Interviews with all 10 International School principals
  Site visits to five International Schools
- Survey of all teachers across all 10 International Schools
- Cost Summary
INTERNATIONAL SCHOOLS

Site Visit Summary Findings
Cost Summary
Teachers, students, and parents highly value International Schools

"It is important to me to teach in an international school"

- Strongly Disagree 3%
- Disagree 5%
- Neither Agree nor Disagree 30%
- Agree 38%
- Strongly Agree 24%

"[Being in an International School means] being surrounding by people who come from different backgrounds, have different identities, have different cultures. And you're able to share those things without feeling like you're going to be judged for it. You're listened to and you feel accepted by everybody." – Student

“It is a big privilege for our children to be here.” – Parent
International Schools can serve as district exemplars in “cultural and global competence”

“Every kid should have learning content that's relevant, that allows them to have the skills necessary to have global competence. But that's just best educational practices that we need to prepare kids for. So every school should be international.” – Principal

“It just is great teaching and learning. It's what we all want to be doing, and I think putting a name on it is helpful.” – Teacher
Stakeholders want district supports/resources for a common vision for International Schools

Desired supports:

• Fund the International Schools Leadership Team (ISLT)
• Reduce barriers to receiving International Education category
• Provide structured time for teachers to collaborate and plan

“If the district is going to have international schools, they need to take the time to actually plan what they want international schools to look like.” – Teacher
There are five categories of district support for International Schools

1. **Start-Up Funding**
   - $15,000 for pre-planning activities
   - $100,000-$130,000 (depending on school size) for initial year of implementation

2. **Central Office Support**
   - ~ $155,000 annual cost (salary, benefits, internal departmental budget)

3. **International Schools Leadership Team**
   - 2016-17: $156,439 across both staff and funding for professional development
   - 2017-18: No funding

4. **Grants**
   - NW relies mainly on LAP, PTA - for IA support, general school activities
   - SE and SW rely mainly on City Levy, Title I - for IA support, programs

5. **Staffing Mitigation**
   - For 2016-17, 6.0 FTE were requested across six schools for $585,579 total
DUAL LANGUAGE IMMERSION

DLI Models
Perceptions of Implementation and Outcomes
Outcomes and Impact Analysis
## DLI Models vary across schools

<table>
<thead>
<tr>
<th>Region</th>
<th>School</th>
<th>DLI Languages Offered</th>
<th>% students in DLI</th>
<th>% Heritage Language Students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northwest Region</strong></td>
<td>McDonald International School (K-5)</td>
<td>Spanish, Japanese</td>
<td>100%</td>
<td>14% Spanish; 9% Japanese</td>
</tr>
<tr>
<td></td>
<td>John Stanford International School (K-5)</td>
<td>Spanish, Japanese</td>
<td>100%</td>
<td>14% Spanish; 26% Japanese</td>
</tr>
<tr>
<td></td>
<td>Hamilton International Middle School</td>
<td>Spanish, Japanese</td>
<td>18%</td>
<td>11% Spanish; 2% Japanese</td>
</tr>
<tr>
<td></td>
<td>Ingraham International High School</td>
<td>Spanish, Japanese</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Southwest Region</strong></td>
<td>Concord International School (K-5)</td>
<td>Spanish</td>
<td>68%</td>
<td>62% Spanish</td>
</tr>
<tr>
<td></td>
<td>Denny International Middle School</td>
<td>Spanish</td>
<td>20%</td>
<td>82% Spanish</td>
</tr>
<tr>
<td></td>
<td>Chief Sealth International High School</td>
<td>Spanish</td>
<td>10%</td>
<td>94% Spanish</td>
</tr>
<tr>
<td><strong>Southeast Region</strong></td>
<td>Beacon Hill International School (K-5)</td>
<td>Spanish, Mandarin</td>
<td>71%</td>
<td>59% Spanish; 1% Mandarin</td>
</tr>
<tr>
<td></td>
<td>Dearborn Park International School (K-5)</td>
<td>Spanish, Mandarin</td>
<td>43%</td>
<td>6% Spanish; 0% Mandarin</td>
</tr>
<tr>
<td></td>
<td>Mercer International Middle School</td>
<td>Spanish, Mandarin</td>
<td>11%</td>
<td>59% Spanish; 5% Mandarin</td>
</tr>
</tbody>
</table>
Teachers want curriculum support, PD, collaboration time

“We are constantly developing our own curriculum. We are trying to make something out of nothing.” – Teacher
Teachers’ Top 5 Perceived Benefits of DLI

1. Written and oral communication in two languages
2. Greater appreciation for other languages and cultures
3. Enhanced career and employment opportunities once done with school
4. Improved academic outcomes for English Language Learners
5. Closing the opportunity gap for students of color
# 1. Written and Oral Communication in Two Languages

## 5th Grade Benchmark - Fall 2016 Testing Window

<table>
<thead>
<tr>
<th>Language</th>
<th>Reading</th>
<th>Writing</th>
<th>Listening</th>
<th>Speaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish (3 schools)</td>
<td>n=131</td>
<td>n=128</td>
<td>n=130</td>
<td>n=125</td>
</tr>
<tr>
<td>Reading</td>
<td>-11%</td>
<td>62%</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>-10%</td>
<td>72%</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td>-13%</td>
<td>66%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td>5%</td>
<td>76%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Mandarin (1 school)</td>
<td>n=16</td>
<td>n=16</td>
<td>n=16</td>
<td>n=14</td>
</tr>
<tr>
<td>Reading</td>
<td>-94%</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>-19%</td>
<td>75%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td>-19%</td>
<td>75%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td>-7%</td>
<td>93%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese (1 school)</td>
<td>n=45</td>
<td>n=43</td>
<td>n=45</td>
<td>n=41</td>
</tr>
<tr>
<td>Reading</td>
<td>-31%</td>
<td>69%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>-23%</td>
<td>77%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td>-11%</td>
<td>87%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td>-10%</td>
<td>88%</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

- **did not meet target (NL, NM)**
- **met target (NH, IL)**
- **exceeded target (IM, IH, AL, AM)**
2. Greater appreciation for other languages, cultures

Cultural and global competence is integrated into...

- **My classroom (n=214)**
  - 7% Strongly Disagree
  - 14% Disagree
  - 47% Neither Agree nor Disagree
  - 31% Agree

- **Schoolwide Initiatives (n=211)**
  - 3% Strongly Disagree
  - 18% Disagree
  - 15% Neither Agree nor Disagree
  - 50% Agree
  - 15% Strongly Agree

- **Extracurriculars (n=208)**
  - 3% Strongly Disagree
  - 16% Disagree
  - 21% Neither Agree nor Disagree
  - 40% Agree
  - 22% Strongly Agree

*SEATTLE PUBLIC SCHOOLS*
3. Enhanced career/employment opportunities

Teachers and students note the importance of DLI as a pathway to earning college credits

“I have noticed that some of these highly accomplished students in my immersion class...they have a horizon to continue with Spanish immersion, IB, and they say, "okay, I want to get that credit." You can tell them, ‘do your best, because there's an incentive out there – college life is incredible.’” – DLI Teacher
4. Improved academic outcomes for ELLs

5. Eliminating Opportunity Gaps

“Students realize the importance of having the opportunity to join a program that will promote their culture, their heritage language. Students feel connected, parents feel connected, and students are given multiple opportunities to be successful.” – Teacher in SW Pathway school
Impact Analysis Research Questions

1. What is the effect of DLI on student achievement in ELA and math?
   - Differences by immersion program language
   - Differences by race, home language, low-income status, ELL status

2. What is the effect of DLI on ELL reclassification?

3. What is the effect of DLI on high school graduation?
Impact Analysis Methods

- **Propensity Score Matching (PSM)** used to select a control group with similar student demographics
  - Gender
  - Race/Ethnicity
  - Home Language
  - Grade
  - Free & Reduced Lunch (FRL)
  - Special Education
  - Highly Capable (gifted)
  - English Language Learner (ELL)
  - ELL Exited
  - ELL Placement Level
  - Homeless
  - Mobility
  - Attending neighborhood school
  - 3rd grade MSP

- **Multilevel regressions** used to analyze the effects of DLI on the outcomes

- Limitations: DLI flags, teacher-level effects, selection bias
We found statistically significant positive effects across all three language programs, although the effects did vary by subject and year.

<table>
<thead>
<tr>
<th></th>
<th>ELA 2016-17</th>
<th>Math 2016-17</th>
<th>ELA 2015-16</th>
<th>Math 2015-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese DLI</td>
<td>-</td>
<td>✓ (.14)</td>
<td>-</td>
<td>✓ (.18)</td>
</tr>
<tr>
<td>Mandarin DLI</td>
<td>✓ (.23)</td>
<td>✓ (.37)</td>
<td>-</td>
<td>✓ (.26)</td>
</tr>
<tr>
<td>Spanish DLI</td>
<td>✓ (.16)</td>
<td>✓ (.21)</td>
<td>✓ (.19)</td>
<td>✓ (.23)</td>
</tr>
</tbody>
</table>

Effects for Hispanic/Latino students in Spanish DLI program are statistically significant in Math in both years and in ELA in 2016-17.

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<tr>
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<th>ELA 2016-17</th>
<th>Math 2016-17</th>
<th>ELA 2015-16</th>
<th>Math 2015-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spanish DLI</td>
<td>✓ (.18)</td>
<td>✓ (.29)</td>
<td>-</td>
<td>✓ (.29)</td>
</tr>
</tbody>
</table>

Interactions of DLI and ELL, DLI and Low Income, and DLI and Heritage Speaker were not significant.
Research Question #1
Student Achievement (continued)

Longitudinal Analyses

- K-8 Cohort Analysis
  - 2008-09 Kindergarten through 2016-17 (120 students)

- K-6 Cohort (3 separate cohorts)
  - 2010-11 through 2016-17, 2009-10 through 2015-16 and 2008-09 through 2014-15 (389 students)

- No statistically significant effect of DLI or years in DLI after controlling for student demographics and 3rd grade achievement (MSP)
Using logistic regression, we analyzed 2016-17 ELPA21 results to test whether DLI students had a different probability of exiting ELL program

- No statistically significant differences in ELL exit rates between DLI and matched controls

Cohort data was used to look at whether DLI ELL students took more or less time (in years) to exit the ELL program

- Descriptive evidence that DLI ELL students spend more time in ELL program than non-DLI ELL students

<table>
<thead>
<tr>
<th></th>
<th>Number of students</th>
<th>Average years ELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-DLI</td>
<td>1172</td>
<td>4.17</td>
</tr>
<tr>
<td>DLI</td>
<td>154</td>
<td>4.81</td>
</tr>
</tbody>
</table>
Is DLI a “Gap Closing Strategy”? 

• DLI does have the potential to serve as an academic accelerator
  • Comparing DLI students to non-DLI students
  • Comparing Hispanic DLI students to Hispanic non-DLI students
• Impact analyses do not reveal any negative impacts on student achievement for any groups of students or across all enrolled DLI students as a whole
• No evidence that DLI program effects are different in magnitude for students of color compared to white students