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The Seal of Biliteracy: Considering Equity and Access for English Learners

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Abstract: The Seal of Biliteracy is a grass-roots language policy initiative that is sweeping across the United States. An award affixed to high school graduates' transcripts and diplomas, the overarching purpose of the policy is to promote and foster students' bilingualism and biliteracy in K-12 schools. Initiated in California in 2011, the policy has been modified significantly as stakeholders in 32 different states have drafted, passed, and enacted similar legislation in recent years. On its surface, the policy appears to hold promise in disrupting the monolingual norm prevalent in U.S. schools; however, with many states focusing efforts on world language education for English-dominant students, a critical analysis of the policy from the lens of the large and growing population of

English learners is warranted. This paper considers the 32 state policies from this lens, first exploring the policy purpose and logistics and then making policy recommendations to enhance equity and access for English learners. The recommendations target stakeholders across the United States who seek to either initiate or revise Seal of Biliteracy policies within their unique state contexts.

Keywords: English learners; biliteracy; heritage language

El Seal of Biliteracy: Considerando la equidad y el acceso para los alumnos de inglés

Resumen: El Seal of Biliteracy es una política de lenguaje que está ganando popularidad en todo Estados Unidos. Un premio fijado transcripciones y diplomas graduados de la secundaria, a propósito de la política es promover y fomentar el bilingüismo y biliteración en las K-12 escuelas. Iniciada en California en 2011, la política fue modificada de forma significativa a medida que las partes interesadas en 32 estados diferentes elaboraron, aprobaron y promulgar una legislación similar en los últimos años. En su superficie, la política parece ser muy prometedora en interrumpir el monolingüismo prevalente en los EE.UU. escuelas; sin embargo, con muchos estados interesados en la enseñanza de idiomas del mundo para los estudiantes inglés-dominantes, un análisis crítico de la política a partir de la lente de la población grande y creciente de los estudiantes inglés está garantizado. Este artículo considera las 32 políticas estatales a partir de esa lente, explorando primero la política y la logística y, a continuación, haciendo recomendaciones de políticas para aumentar la equidad y el acceso para los alumnos de inglés. Las recomendaciones apuntan a las partes interesadas en los Estados Unidos que buscan iniciar o revisar las políticas del Seal of Biliteracy dentro de sus contextos de estado únicos.

Palabras clave: alumnos de inglés; biliteração; idioma del patrimonio

O Seal of Biliteracy: Considerando a equidade e o acesso para os alunos de inglês

Resumo: O Seal of Biliteracy é uma política de linguagem que está ganhando popularidade em todo o Estados Unidos. Um prêmio fixada transcrições e diplomas graduados do ensino médio, a propósito da política é promover e fomentar o bilinguismo e biliteracy no K-12 escolas. Iniciada na Califórnia em 2011, a política foi modificada de forma significativa à medida que as partes interessadas em 32 estados diferentes elaboraram, aprovaram e promulgaram legislação semelhante nos últimos anos. Em sua superfície, a política parece ser muito promissora em interromper o monolingualism prevalente em EUA escolas; no entanto, com muitos estados interessados no ensino de idiomas do mundo para estudantes inglês-dominantes, uma análise crítica da política a partir da lente da população grande e crescente de alunos inglês está garantido. Este artigo considera as 32 políticas estaduais a partir dessa lente, explorando primeiro a política e a logística e, em seguida, fazendo recomendações de políticas para aumentar a equidade e o acesso para os alunos de inglês. As recomendações visam as partes interessadas nos Estados Unidos que buscam iniciar ou revisar as políticas do Seal of Biliteracy dentro de seus contextos de estado únicos.

Palavras-chave: alunos de inglês; biliteração; idioma do patrimônio

The Seal of Biliteracy: Considering Equity and Access for English Learners

A nascent policy initiative in the United States, the Seal of Biliteracy (SoBL) is “an award made by a state department of education or local district to recognize a student who has attained proficiency in English and one or more other world languages by high school graduation” (ACTFL, NABE, NCSSFL, & TESOL, 2015, p. 2). In participating districts in states that have adopted the SoBL, students who demonstrate proficiency in both English and another language are eligible to earn a seal that is affixed to their high school diploma or transcript. This policy initiative began in California as a grassroots effort by educators and language advocates aiming to promote biliteracy despite restrictions on bilingual education for English learners (ELs). Since California’s successful legislation in 2011, 31 states and the District of Columbia (DC) have followed suit in enacting SoBL policies through various methods, including legislation via the state legislature, policy resolution by the state board of education, or program handbook drafted by state or district administrators (see Table 1).

Table 1
States with Seal of Biliteracy Policy (in order of policy enactment)

2011	2013	2014	2015	2016	2017	2018
California	Texas	New Mexico	North Carolina	New Jersey	Ohio	Michigan
	New	Washington	Virginia	Florida	Colorado	Tennessee
	York	Louisiana	Indiana	Oregon	Connecticut	
Illinois		Minnesota	Nevada	Maryland	Delaware	
		District of	Hawai‘i	Georgia	Missouri	
		Columbia	Wisconsin	Arizona	Massachusetts	
			Utah	Kansas		
				Rhode		
				Island		

Regardless of the state’s approach to the policy, students currently or formerly labeled as ELs can achieve the SoBL by demonstrating proficiency in English, as well as their home or other language. We contend that this policy initiative holds promise for the approximately 10 million students who speak a language other than English at home, including the 4.6 million students labeled as ELs in Kindergarten-through-grade-12 (K-12) public schools (National Center for Education Statistics, 2016). When implemented in practice, the SoBL has the potential to provide ELs with opportunities to jointly develop home languages, particularly in secondary settings where ELs often receive subtractive, remedial, English-only instruction (Janzen, 2008; Menken, 2013; Menken & Kleyn, 2010; Reyes & Her, 2010; Wells, 2010). Nonetheless, we assert the need to critically evaluate the goals and logistics of states’ SoBL policies with a lens on equity and access for ELs.

Policy Goals

Across the country, SoBL policies have been drafted to emphasize the goal of promoting bilingualism and biliteracy with all students (Seal of Biliteracy, 2018). Yet, approximately two thirds of states did not explicitly mention ELs when framing the policy's purpose, including Arizona, Colorado, Florida, Georgia, Illinois, Kansas, Louisiana, Maryland, Missouri, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Rhode Island, Tennessee, Texas, Utah, Virginia, and Washington. Perhaps as a result, some states' SoBL policies prioritize elite bilingualism among English-dominant students. Other states left out ELs in the formal framing of the policy, but prioritized ELs during policy implementation. For example, Georgia stakeholders avoided explicit mention of ELs to successfully move the bill through the conservative legislature.

On the other hand, a cadre of states explicitly enacted the policy to promote the biliteracy of language-minoritized students. Approximately one third of participating states specifically mention ELs, heritage language learners, or linguistically diverse students in the overarching purpose of the policy, including California, Connecticut, Delaware, DC, Hawaii, Indiana, Massachusetts, Michigan, Minnesota, and Wisconsin. In Minnesota, for example, SoBL efforts stemmed from legislation aiming to close the EL achievement gap, which included emphasis on bolstering ELs' home language abilities. We see two trends among these states. First, four of these contexts (i.e., DC, Hawai'i, Michigan, Wisconsin) circumvented their state legislatures to instead go through the state board or department of education, thus requiring less political maneuvering to ensure passage. Second, four states enacted their policies recently—including Connecticut, Delaware, and Massachusetts in 2017, and Michigan in 2018—indicating a potential national trend returning to the original priority of the grass-roots movement initiated in California.

Policy Guidelines

States vary in the ways in which students demonstrate proficiency in other languages to receive the SoBL (Davin & Heineke, 2017). In a handful of states, including California, Colorado, Florida, Louisiana, North Carolina, and Texas, students can demonstrate proficiency by achieving a particular Grade Point Average (GPA) in a determined sequence of world language coursework, which is commonly referred to as *seat time*. Other states require scores on recognized assessments of world languages, including Hawaii, Indiana, Maryland, Minnesota, Nevada, Rhode Island, and Virginia. While providing more tangible evidence of language proficiency in contrast to seat time, this approach excludes languages that are less commonly taught in schools, including many home languages of ELs. More equitable forms of evidence used by some states include language portfolios or certification by indigenous groups. In addition to varying ways to demonstrate language proficiency, states vary by the minimum proficiency levels required to receive the award, or in some states, different tiers of the award (see Table 2). For example, students must demonstrate Intermediate Low in North Carolina versus Advanced Low in DC.

Table 2
World Language Proficiency Requirements per State Policy

Proficiency	State Policy
Intermediate Low	Illinois (Level 1: Commendation); North Carolina
Intermediate Mid	Arizona; Colorado; Connecticut; Delaware (Level 1: Gold); Florida (Level 1: Silver); Hawaii; Kansas (Level 1: Gold); Massachusetts (Level 1: Silver); Missouri (Level 1); New Jersey; Rhode Island (Level 1; Silver); Tennessee; Virginia; Utah; Washington
Intermediate High	Georgia; Illinois (Level 2: Gold); Indiana; Maryland; Massachusetts (Level 2: Gold); Michigan; Minnesota (Level 1: Gold); Nevada; New Mexico; New York; Ohio; Oregon; Texas; Wisconsin (Level 1: Seal of Biliteracy)
Advanced Low	Delaware (Level 2: Diamond); D.C.; Florida (Level 2: Gold); Kansas (Level 2: Platinum) Louisiana; Massachusetts (Level 3: Platinum); Minnesota (Level 2: Platinum); Missouri (Level 2: Distinguished); Rhode Island (Level 2: Gold)
Advanced Mid	Wisconsin (Level 2: Distinguished Seal of Biliteracy)
n/a	California (does not specify ACTFL proficiency level)

States also have varying requirements for students to demonstrate English language proficiency (Davin & Heineke, 2017). GPA is the primary measure in many states, including GPA in English language arts courses in Arizona, California, Georgia, Kansas, Nevada, Texas, and Utah and overall GPA in Hawai'i. Another cadre of states (i.e., Louisiana, Michigan, Minnesota, New Jersey, New Mexico, Oregon, Virginia, Washington) infers students' English proficiency if they meet graduation requirements. In other states, students must pass end-of-course exams, which come in 10th grade in Florida, Indiana, Maryland, and Massachusetts and 11th grade in California and Rhode Island. In this particular approach, ELs are put at a disadvantage in that they must demonstrate proficiency in their second language (i.e., English) early on in their high school careers, whereas English-dominant students typically have through their senior year to do the same in a world language.

Some states have additional requirements for ELs to receive the award, requiring students to demonstrate English proficiency beyond the above-described measures. In California, Nevada, and Texas, ELs must pass the state-level English proficiency assessment, subsequently demonstrating advanced proficiency and formally exiting EL services. In North Carolina and Wisconsin, ELs do not need to pass the proficiency exam and shed the EL label, but they need to achieve particular scores to indicate biliteracy abilities. Not only does this approach require additional testing for ELs, it sets more rigorous English proficiency requirements for ELs than world language requirements.

for English-dominant students. For example, in Texas, second language proficiency is set at intermediate high for English-dominant students, but advanced high for ELs.

Policy Recommendations

We recommend that stakeholders probe the equity of requirements for students to achieve the Seal of Biliteracy in their state, including any additional testing requirements for ELs, earlier deadlines to demonstrate English proficiency, and more rigorous requirements for English versus other languages. First, ELs should not be subjected to double testing requirements to receive the award, as English proficiency can be gleaned on the English-specific measures already determined by the state. Second, students should have the same amount of time to demonstrate biliteracy; if English-dominant students can demonstrate world language proficiency through 12th grade, then ELs should not be expected to demonstrate English proficiency in 10th or 11th grade. Third, if biliteracy for all is truly the goal of the policy, then students should be held to similar expectations of language proficiency; for example, students might achieve the SoBL for demonstrating advanced proficiency in their home language and intermediate proficiency in a second language, whether that be English or another language.

Issues of access must also be considered, specifically evaluating what languages are able to be recognized via the SoBL. In many states offering the award, students can only demonstrate proficiency in another language on approved exams. This results in particular languages being prioritized, such as those taught in high school world language coursework, such as Spanish, French, and German. But students in U.S. schools come from homes using over 300 languages (American Community Survey, 2015), including a diverse array of immigrant (e.g., Hmong, Malayalam) and indigenous languages (e.g., Dakota, Navajo). When the award is limited to particular languages, specifically prioritizing world languages formally taught in schools, it becomes exclusionary in nature —denying access to ELs with proficiency in their home language. We recommend flexibility in assessing proficiency in less common languages, such as certification by indigenous tribes in New Mexico or portfolio assessments in Illinois.

ELs are a large and growing sub-group in U.S. schools. An estimated 20% of the student population in K-12 schools speak languages other than English, with half of those considered as ELs (NCES, 2016). In a policy that aims to build the bilingualism and biliteracy of all students, this sub-group of learners must be considered and prioritized. They bring rich linguistic backgrounds and abilities into classrooms and schools, which should be encouraged, honored, and celebrated in equitable ways in comparison to English-dominant students learning another language. We contend that the issues of equity and access described above should be approached consistently across the country, with all participating states equitably and authentically including ELs in policy goals and logistics to achieve the award. In this way, whether drafting new policy or revising current policy, state-level stakeholders should critically consider and prioritize these issues of equity and access for ELs. While these formal policy decisions are made at the macro-level, teachers and administrators should recognize these issues with the current approach and advocate for ELs' equitable access to achieve the Seal of Biliteracy.

References

American Council on the Teaching of Foreign Languages, National Association for Bilingual Education, National Council of State Supervisors for Languages, & Teachers of English to Speakers of Other Languages International Association. (2015). Guidelines for implementing

- the Seal of Biliteracy. Joint report. Retrieved March 21, 2018, from
http://www.actfl.org/sites/default/files/pdfs/SealofBiliteracyGuidelines_0.pdf
- American Community Survey. (2015). Detailed languages spoken at home and ability to speak English for the population 5 years and over for United States: 2009 to 2013. Washington, DC: U.S. Census Bureau.
- Davin, K. J., & Heineke, A. J. (2017). The Seal of Biliteracy: Variations in policy and outcomes. *Foreign Language Annals*, 50, 486-499. <https://doi.org/10.1111/flan.12279>
- Janzen, J. (2008). Teaching English language learners in the content areas. *Review of Educational Research*, 78, 1010-1038. <https://doi.org/10.3102/0034654308325580>
- Menken, K. (2013). Emergent bilingual students in secondary school: Along the academic language and literacy continuum. *Language Teaching: Surveys and Studies*, 46, 438-476.
<https://doi.org/10.1017/S0261444813000281>
- Menken, K., & Kleyn, T. (2010). The long-term impact of subtractive schooling in the educational experiences of secondary English language learners. *International Journal of Bilingual Education & Bilingualism*, 13, 399-417. <https://doi.org/10.1080/13670050903370143>
- National Center for Education Statistics. (2015). EDFacts file 141, Data Group 678; Common Core of Data, “State Nonfiscal Survey of Public Elementary and Secondary Education.” Table 204.27.
- Reyes, R., & Her, L. N. (2010). Creating powerful high schools for immigrant and English language learning populations. *Yearbook Of The National Society For The Study Of Education*, 109, 527-547.
- Seal of Biliteracy. (2018). State laws regarding the Seal of Biliteracy. Retrieved February 18, 2018, from www.sealofbiliteracy.org
- Wells, R. (2010). Children of immigrants and educational expectations: The role of school composition. *Teachers College Record*, 112, 1679-1704.

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