

Article

Literacy for Sustainable Education: A Premise of Pedagogical Inclusiveness and Multilingualism in Higher Education

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Abstract: Literacy has moved from conventional concepts of reading, writing, and counting skills to proficiency in reading, writing, data, technology, and education for sustainable development. The transition aims to prepare students to engage in a sustainable society and the method aims to cultivate multilingualism and inclusiveness in undergraduate education via a first-year writing (FYW) program. Considering the sustainability of such a transition, this study employs a case study of the FYW program to demonstrate to what extent literacy evolves via pedagogical inclusiveness and multilingualism in higher education. The FYW focuses on how educators can ensure pedagogical inclusiveness by inviting the varied language lingua students have before they arrive at our learning community rather than learning the language itself. The new FYW curriculum includes the World English of our students and embraces multilingualism rather than focusing on error correction so that students fit the norms and rules of American English. The longitudinal data from 2010 to 2020 were collected via five surveys with different approaches, and descriptive statistics were used to analyze them. The outcomes indicated that the new premise generates better course outcomes and fosters students as confident and comfortable writers and readers. The FYW program intersects with other STEM programs to build a more sustainable undergraduate education and cultivate students' literacy capacity for sustainable development and lifelong learning.

Keywords: sustainable education; literacy; higher education; inclusiveness; multilingualism; first-year writing program



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1. Introduction

Literacy nowadays has moved from conventional concepts of reading, writing, and counting skills to proficiency in reading, writing, data, technology, and education for sustainable development [1]. Such a paradigm shift evolved into how we developed our literacy curriculum, which is traditionally centered on language acquisition, error correction, and proficiency in subject knowledge. However, the traditional curriculum might not capture the diversity of the current student body, specifically multilingualism. Multiple factors, such as globalization, population movement across borders, and the development of new technology, have led multilingualism to reflect the changes in society and education [2]. Multilingualism reflects how our classrooms host linguistic diversity and the various language practices of our students via reading, listening, speaking, and writing. As these students are already in our classroom, we must leverage them to surface their values and support trans-lingual literacies among all learners in meeting Sustainable Development Goals 4 and 10 [3,4] which aim at promoting quality education and reduced inequalities. Multilingualism can be seen as sponsorship [5–7], disposition, and a strategy for learning and language practices as well as new language thinking and talking for language learners and writers. Its equity-minded approach to assessment empowers

students through shared governance and individualized [8], rather than standardized, writing standards and goals [9–11]. In short, such a learning experience allows students to initiate active learning and provides them with more sustainable development.

To embrace multilingualism within sustainable education, we need to reframe our curriculum by understanding the literacy narratives of our students and how we can be inclusive during instruction [12]. We should be inclusive of the “World English” of our students and embrace our multilingualism rather than focusing on error correction so that students fit the norms and rules of “American English”. Hosting the diversity of “World English” and “American English”, we continue to support learning in English via a sustainable approach. Such a pedagogical premise migrated students from teacher-centered to student-centered approaches and allowed for the happening of active learning. The learning is process-oriented and is initiated by understanding our students to then rethink how we as teachers teach this group. As we move forward, we learn more about the complex histories and grow our understanding of what language is and how, when it circulates unconstrained, we all develop new dispositions, strategies, and norms. In other words, we start the curriculum intervention by recognizing the multilingual literacy of our students by inviting them to tell us how they started learning their mother tongue or English. Such practices invite students to bring their literacy into the curriculum, thus creating a more sustainable education and learning environment.

In California, the goals of our curriculum premise are not to compare the academic achievement of students with various linguistic, ethnic, gender, racial, or income backgrounds; rather, we would like them to express who they are via our online modules before they start the First-Year Writing (FYW) program. Students are encouraged to share their literacy journey in their own words, and instructors cannot penalize their words or the journey based on grammatical errors or a language other than English. The purpose of the writing practice via online modules is to voice out who they are and our acceptance. Such a practice allows them to be recognized as our campus community and how FYW’s interventions create a curriculum that is inclusive, equitable, and sustainable for our students [13]. This study examines the implemented effect of such an intervention in the FYW program at San José State University (SJSU). Nested in Silicon Valley, SJSU had around 10% international students and more than 70% multilingual and low-income students between the years 2010 and 2020 [14]. In response to Goal Initiative 2030, SJSU is also one of the public universities in California that has implemented the policy. The instructional language map of SJSU benefits all learners as they adapt through active learning and share writing values and social values with other California State University (CSU) and University of California (UC) campuses. The founding of the FYW program at SJSU is built upon the state-wide policy, and each state university has implemented it differently.

Considering that learning is a multifaceted concept, numerous researchers have investigated how to promote student engagement and academic performance for a more sustainable undergraduate education [15,16]. Such a concept is not new, as it provides additional assessment of sustainable learning in addition to college rankings and awards [17–19]. The study aims to explore how the multilingual FYW program premise and pedagogical inclusiveness have contributed to sustainable education. The implication of this study can also inform joint efforts from other campus partners that might also want to promote such practices. The theoretical framework of this study hypothesized a learner-centered premise where our learners could interact with their multilingual and monolingual instructors as well as students, as shown in Figure 1. Then, active learning facilitates how learning takes place in the FYW classroom.

In the FYW classroom, professors might bring in objects with cultural meanings and invite students to pick them up and share how they relate to such objects. It could be a clay Buddha sculpture, an impressionist painting, Chinese calligraphy, or objects that students bring. During the process, students are encouraged to provide positive comments, and questions or criticism should be posed in a suggestive and non-judgmental way. These initial sharing practices allow professors, students, and their peers to enhance mutual

understanding and support. Some professors also ask students to revise their original literacy journey on the online module at the end of the FYW courses to reflect the changes and share reasons behind the changes. Such practices allow professors and students to understand each other and foster a more inclusive learning environment. It also allows the happenings of active learning, as students reflect on how they transform in the FYW learning process.

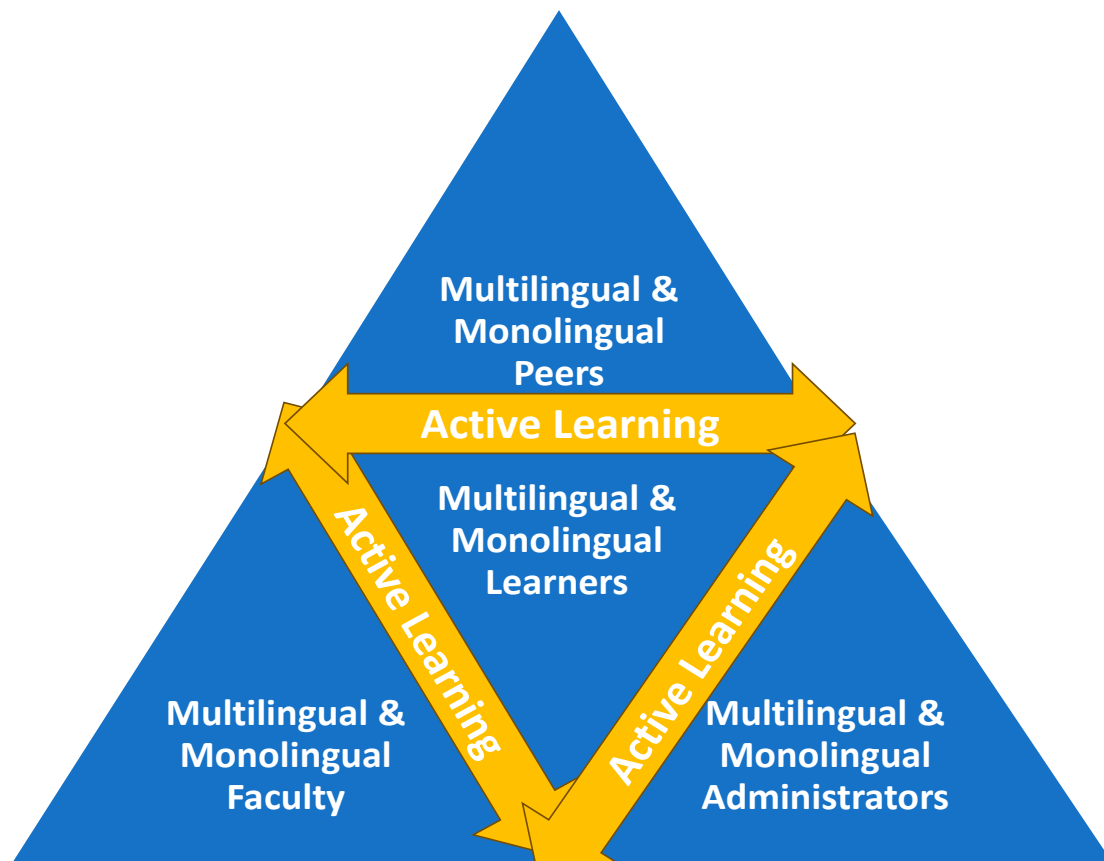


Figure 1. Multilingualism and active learning in the sustainable FYW program.

Based on Figure 1, the theoretical framework shows how we transformed learning practices by cohosting students and faculty to support sustainable learning in a multilingual environment. It also shows how the FYW program is structured at SJSU, as our classrooms are a place where English serves as an operant lingua franca. How is SJSU hosting the multilingual and monolingual faculty and students in the FYW program? It starts with the classroom, but it does not stop there, as students have been educated and are moving along in their undergraduate education. As the FYW program is the required entry course for all undergraduates, except those who came in with the earned units, it provides the context for how these students are doing in the FYW program. Acknowledging our students as accomplished novices in the development of our collective literacy contributes to removing mythic nativism and building multilingualism. When learners participate in learning processes, they inevitably engage in language practices. In this system, all individuals are notes of a language melody composed by monolingual and multilingual exchange, which shapes us all. In other words, multilingualism is a disposition to and strategy for learning language practices and communication in the sustainable FYW program.

The learner-centered premise is facilitated by active learning, which is the core of the innovative FYW curriculum. Active learning allows students and teachers to teach and learn from each other and it builds on more promising, inclusive, equitable, and sustainable pedagogy. Such sustainable practices allow student voices where faculty observe

interactions and reshape curriculum and instructional practices. Such instructional activity engages all dimensions of learning, and it also allows for the personal identities we bring to our classroom. Applying active learning in the multilingual FYW classroom would be able to promote student performance in terms of the course success rate and possibly address the achievement difference among various subgroups. This study therefore addresses the following research questions:

RQ1. How does the sustainable FYW program ensure multilingualism to reflect the language diversity of students?

RQ2. After implementing the sustainable curriculum in response to state-wide policy, do multilingual and monolingual students perform differently in the FYW program?

RQ3. Does the FYW program host student experience in an inclusive and equitable learning environment as their entry-college learning experience toward sustainable development?

2. Literature Review

The literature review first starts by reflecting on the language diversity of student matters and how that might be integrated into sustainable education, as well as language policies for the legal status. It then further discusses the potential of multilingualism and how multilingual education can benefit society and nations in meeting SGDs 4 and 10.

2.1. Language Diversity, Multilingualism, and Language Policies

Language is a fundamental aspect of cultural identity and empowerment, applying to both majority groups and minorities (whether long-standing or recent migrants) as well as indigenous peoples. Language diversity also reflects the vast array of languages spoken globally, and this categorizes certain languages as “majority” and others as “minority” within specific national contexts [20]. Language diversity is a relative concept, typically measured based on national boundaries. Specifically, it suggests which language has the official/legal status of minority and indigenous languages to use in education and other institutions within the nation. In education, language diversity also refers to which group has access to schooling, community, and national educational systems that promote intercultural education and language instruction [21]. It is commonly referring to multilingual education programs that teach language and promote its culture. UNESCO defines more inclusive multilingual education as the usage of at least three languages—the mother tongue, the national language, and an international language [22]. The primary goal of multilingual education is to empower students by supporting the sustainable development of proficiency in multiple languages, thereby promoting linguistic diversity, cultural understanding, and academic success [23]. Multilingual education is different from bilingual education as the emphasis is on using another language as a medium of instruction or a subject of study. Multilingual education is also not dual-immersion language programs, as those programs provide instruction in both the majority and targeted languages.

A multilingual education program recognizes the influence of the home languages of students and accepts them as their assets. Multilingualism and multilingual education recognize the language diversity of the student body and see them as an asset rather than a disadvantage. Matras and Robertson found that such initiatives raise the awareness of language diversity and contribute to a more inclusive society [24]. Multilingualism and related activities pave the way towards appreciating language diversity as a vital element of social inclusion [25], as it regards students’ home languages as assets. Monje examined the language diversity in Manila and unveiled strategies that can be used to display dissent through linguistic devices [26]. Multilingual education recognizes the linguistic and cultural diversity of the community and invites them to pave ways together into a more sustainable society.

Bröring and Mijts explored language practices in the postcolonial small island state of Aruba, and their findings suggest that language planning and policy employed in Aruba do not support a linguistically inclusive society as they do not represent the population or

the linguistic diversity of the island [27]. Their study illustrated that sustainable language planning and policy should reflect the linguistic diversity of the society or nation. Gobbo's study contextualizes the current predominant English as the current global lingua franca and the possibility to create and develop a renewed assessment [28]. Marushiakova and Popov's study also highlights a lack of multilingual awareness in the efforts to include Roma children in mainstream schooling and the lack of interest among Roma people to accept a mother-tongue-based multilingual education [29]. Treneska-Deskoska's study further frames why and how states should accommodate linguistic diversity in Macedonia, which has ethnolinguistic communities that have challenged the state administration since its 1991 independence [30]. Macedonia has adopted a promotional approach to grant linguistic rights to minorities and introduced Albanian as an official language alongside Macedonian. These studies illustrate how language policy can affirm the legal status of local and international languages and contribute to a sustainable society.

International retirees, such as Scandinavians (Norwegian and Swedish) residing in the Spanish province of Alicante, found English as a way to social, cultural, and linguistic inclusion in their migration experience [31]. In Scotland, where the official language is English, McKelvey's study found the demand for language policies and multilingual public services to achieve the balance for inclusion and increasing mobility, diversity, and multilingual demographics [32]. Jessner and Mayr-Keiler's study also examines the context of language choices and usage in children attending bilingual and multilingual schools in Austria, evaluating how these dynamics of language practice interplay with broader considerations related to social inclusion [33]. L'nyavskiy-Ekelund and Siiner analyze parallel and separated school systems for Russian and Estonian-speaking children, revealing how these schools aim to drive inclusive institutions by employing multilingual practices [34]. Countries promoting multilingual solutions largely acknowledge that the government and the public sector need to coordinate action to address this issue with the process. Language and social policies employed in a British university illustrate how initiatives for awareness of language diversity can contribute to developing a more inclusive learning environment [35]. These studies have illustrated how multilingualism and language policies contribute to a more sustainable society.

2.2. Sustainability and Multilingual Education

The rationale for multilingual education lies in its potential to promote linguistic and cultural diversity, enhance cognitive development, and improve educational outcomes for a diverse student population [36]. Multilingual education can contribute significantly to preserving and revitalizing indigenous and minority languages, fostering a sense of pride and identity among linguistic minority groups. Research has shown that bilingual and multilingual individuals often demonstrate enhanced cognitive reasoning, such as problem solving, critical thinking, and metalinguistic awareness, compared to monolinguals [37]. Compared to their monolingual peers, multilingual students need to adapt to the environment and constantly transition to different languages and cultures. This enhances their cognitive ability, which leads to a deeper understanding and appreciation of other cultures, fostering a more inclusive and diverse society. Multilingual education has been linked to improved academic performance, particularly in literacy, numeracy, and academic achievement across various disciplines [38]. By valuing and affirming linguistic diversity, multilingual education affirms their cultural assets, values the linguistic diversity of students, and provides them with access to education.

Multilingual education can include language programs that provide instruction in the targeted language and at least one minority or heritage language spoken by students [39]. These programs aim to develop students' language proficiency while promoting academic achievement and cultural understanding. Language immersion programs immerse students in a second or foreign language by providing instruction primarily or exclusively in the targeted language. Heritage language education and programs aim to preserve linguistic and cultural heritage while supporting students' academic success and iden-

tivity development [40]. Transitional bilingual education programs provide instruction in students' native language(s) while gradually transitioning to instruction in the majority language. These language programs integrate students from diverse linguistic backgrounds and promote bilingualism, biliteracy, and cross-cultural competence among all students [41]. Countries like Canada, Switzerland, and Singapore have successful bilingual and multilingual education policies that can serve as examples for policymakers [42,43]. Overall, multilingual education has the potential to promote linguistic and cultural diversity, enhance cognitive development, and improve educational outcomes for students from diverse linguistic backgrounds. It can also facilitate the preservation and revitalization of indigenous and minority languages while addressing the needs of linguistically diverse students through a holistic approach [44]. It also enhances the sustainability of education in general by being more inclusive to a gradually diverse student body.

3. Method

This study aims to explore how multilingualism and active learning approaches might foster student learning and its sustainability in the FYW program. Do students perform differently or feel they belong after revealing their literacy journey? Our evaluation of the online module is equity-minded, as we do not penalize students with grades for their non-English literacy journey or grammatical errors influenced by their mother tongues. This online module is the entry point of the FYW program, and the purpose is to allow our students to foster multilingualism and inclusiveness. We first explored who were the FYW program students as a way to understand their prior backgrounds to assist them better. We then examined the student learning experience in the FYW program in general and whether their prior backgrounds had any impact on their learning. The Institutional Review Board (IRB) at SJSU approved the purpose of this current study as well as the sustainable methods for collecting longitudinal data. Excel and Tableau Prep were used to clean and recode the longitudinal data. Tableau (Version 2022) was used to conduct data analysis for this study. These data contain 5 survey datasets and students' grade data. The following section describes the terminology, data collection, and analysis procedure.

3.1. Data Collection

The data collection of the longitudinal study includes quantitative and qualitative data collected through the online module. The qualitative data collection includes students' literacy journey, open-ended survey questions, words to instructors, online module essays, and the FYW archive. The quantitative data collection encompassed survey data and institutionally approved data, such as grade data, with no private data, such as social students' security identification numbers, birth dates, or names. Students accidentally emailed their driver's licenses when they intended to enroll in the online module; however, those were not included in any quantitative or qualitative data collection. The FYW program did not ask or require students or their parents to submit any documentation to identify their private data according to the regulations of the Family Educational Rights and Privacy Act (FERPA). When parents asked questions related to registration, grades, and office hours, the FYW team required students to contact FYW directly.

The five survey datasets of the longitudinal study were collected via different approaches since the inception of this study. The surveys were collected via three methods from 2015 to 2021: paper survey, Qualtrics, and Canvas. Such changes were to ensure the sustainability of the data collection process to reduce human labor, allocate resources, and disseminate data. Such a transition also eliminated the data joint and cleaning process from multiple sources of data collection methods and tools. The exit survey, for example, was completed by freshmen who completed either ENGL 1A or Stretch from the AY 2015 to 2021. If students did not enroll in either of those courses, then they did not receive the invitation to complete the exit survey. The survey was first conducted as an in-class paper survey (Fall 2015–Spring 2016) before we switched to Qualtrics (Fall 2016 to Spring 2020) and then finally to Canvas (AY 2020–2021). Choice, writing, and reading surveys were distributed

via Canvas to all freshmen who enrolled in Reflection of College Writing (RCW) at SJSU. This also reduced the process of gaining access to three different tools to view or download data, as everyone had access to Canvas. Compared to the previous process of completing training, gaining access, and waiting for approval for the assigned IDs, the process was reduced to adding the particular assigned IDs. All SJSU freshmen are recommended to complete the RCW before the FYW program as it is designed to bridge students from high school to college students to self-explore their literacy journey, reading, writing comfort, and confidence. At the end of the RCW, students would write a paragraph to describe their aspirations for their future FYW program. Among these five surveys, choice, language, writing, and reading surveys were completed before the FYW program, while the exit survey was conducted at the end of the FYW program course. The number of survey respondents by survey is shown in Table 1.

Table 1. Survey response rate.

Survey	Total Number	Number of Respondents	Response Rate
Choice Survey	18,764	16,600	88%
Exit Survey	15,646	9560	61%
Language Survey	16,773	14,896	89%
Writing Survey	18,764	18,009	96%
Reading Survey	18,764	18,101	96%
Total	88,711	77,166	87%

Because most surveys had a response rate of 90% and the exit survey was also above 60%, we concluded that the sampling population is quite representative. The average response rate of these five surveys is 87%, which suggests the generalizability of the results of this study.

3.2. Data Analysis

For sustainability purposes, this study employed Tableau to transform the original survey data, as it is software embedded into the SJSU data warehouse and the university dashboard. The data analysis for this study was separated into several portions where descriptive statistics reported various analyses, such as the demographics of survey respondents, the linguistic diversity of the sampling population, and student performance by home language. It then proceeded to analyze how students were doing in the FYW program in terms of their various demographic and linguistic backgrounds. Finally, it showed the inclusiveness of how students were doing in the program. The total number of descriptive statistics was varied by the number of survey participants who responded to the items and the number of students who completed the courses with a letter grade. Previous FYW studies already contain inferential statistics, and the results are statistically significant and valid [45–47]. Inferential statics, such as ANOVA, were used to compare the mean differences and the variances; thus, the average difference is not the focus of this study. Thus, such methods are not appropriate for the research of this current study.

4. Results

Expanding the existing remedial courses is not a sustainable approach as it prolongs the years of education without receiving college-equivalent courses. The results of FYW program endeavors are presented regarding multilingualism, inclusiveness, and equity.

4.1. Multilingualism

The results revealed that from 2014 to 2019, more than 73% of the FYW students can speak another language besides English. The top five home languages spoken by FYW students are Spanish, Chinese (Mandarin and other regional dialects), Vietnamese, Tagalog,

and Hindi (including Panjabi, Urdu, Tamil, etc.), as shown in Table 2. The rest of the twelve documented home languages ranged from 0.2%, such as German, to 1.9%, such as Korean. The language diversity reflected the demographics of the Silicon Valley residents, which is the main source of the SJSU student population. As the linguistic diversity of the Bay Area shifted, the FYW program also needed to reflect changes in its curriculum to ensure its sustainability. For example, we can observe the increasing number of students who speak Spanish in addition to English at home. This increase is similar to the spoken languages of the Silicon Valley residents. It also implies that the potential student population can be reached internationally.

Table 2. Linguistic diversity of the FYW program students.

Home Languages	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019
English only	23.6%	24.0%	27.3%	21.8%	22.0%	25.0%
Multilingual	76.4%	76.0%	72.7%	79.2%	78.0%	75.0%
Top Five Home Languages among FYW Students						
Spanish	25.4%	26.0%	39.7%	36.9%	30.0%	30.0%
Chinese	18.2%	18.4%	20.1%	20.5%	15.0%	18.6%
Vietnamese	9.9%	9.5%	12%	12.8%	13.0%	3.3%
Tagalog	8.6%	6.5%	11.5%	10.6%	8.0%	9.0%
Panjabi/Urdu/Hindi/Tamil	3.7%	5.3%	7.3%	6.8%	5.0%	6.4%

The previous remedial English course placed students into courses based on their standardized testing scores. In other words, students were placed into courses based on their standardized testing scores without alternatives to explore their course options. This process is also not sustainable if, for example, students could not take tests because of a pandemic or another natural disaster onsite. Previous systems placed students into courses based on their test scores; for example, students can be exempt from ENGL 1A, the college-level credit course, when their test score satisfies the requirement. When students are placed into remedial courses, which are not college-level courses, they do not earn graduation units. Also, the focus is on error correction rather than college-level academic writing and communication. As such, these remedial students are required to complete those remedial courses first before taking ENGL 1A. Such a process prolongs the years of earning undergraduate degrees, and the previous 6-year graduation rate on average across degree programs was around 60% or below that time. Such a process is not sustainable for university education, as students are repeating non-college courses with the knowledge that they were in those courses because they are not good writers. Thus, a new process, directed self-placement, was created.

In the directed-self placement process, students are allowed to explore their language literacy journey via RCW and choose the course that is suited for them. Such choice is not based on their test scores but rather on their own choices; however, advisors, classmates, or parents can also inform them of possible choices and recommend course options. RCW team members are not counselors, so they do not advise or place students into courses. However, students are more than welcome to reach out to team members if they have any coursework questions. Upon request, team members provide additional resources and information to help students make decisions. Writing and Math categories were used to determine the competency of students instead of standardized testing scores. This category is determined by previous coursework, placement scores, and advisors' suggestions rather than a single measurement of test scores. The percentage of FYW students by writing categories and monolingual and multilingual backgrounds is shown in Figure 2.

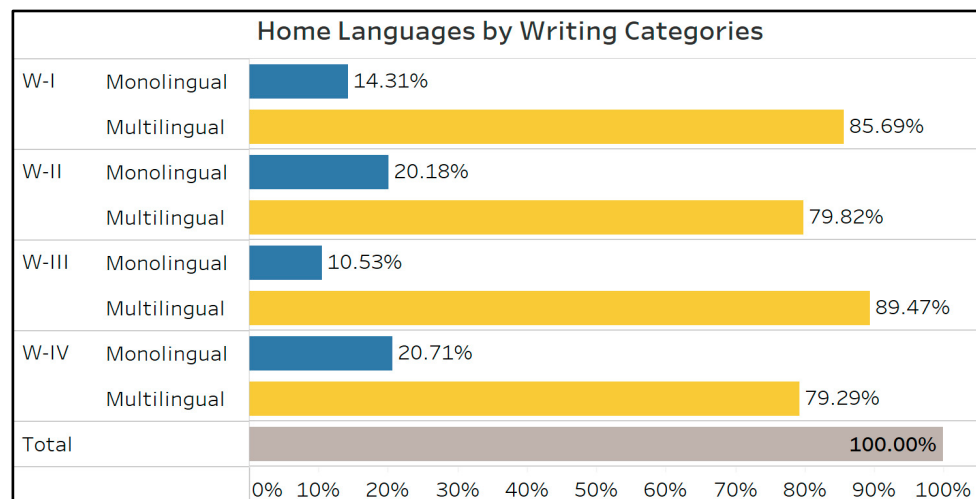


Figure 2. Home languages by writing categories in the FYW program.

The writing categories ranged from W-I to W-IV, where W-I represents students who have the best writing competency compared to their peers when they entered as freshmen. Although students came in with different writing categories, their writing categories did not determine their placement or place them into FYW courses automatically. As Figure 2 shows, we observed a similar percentage of monolingual and multilingual students in the writing categories W-II and W-IV of 20% and 80%, respectively. We also had a higher rate of 89% multilingual students in the writing category W-III and then 86% in the writing category W-I. As for monolingual students, 14% are in writing category W-I and 21% are in writing category W-IV. It is worth noting that there is also a higher percentage of monolingual students in the W-IV category.

Multilingual and monolingual students learn equally well in the two-semester FYW course. There were concerns that students might not do well in the two-semester FYW course without remedial English courses. The data illustrated such concerns were invalid and students did well without remedial English courses. By replacing the previous process with the directed self-placement and FYW program, the graduation rate also increased to 80% and above, which is 20% higher compared to the previous 6-year graduation rate. As Figure 3 shows, multilingual and monolingual students performed similarly in the two-semester FYW course. In both writing categories, W-I and W-II, the difference between monolingual and multilingual students is within 3% on average. It is worth noting that multilingual students outperformed monolingual students in the writing category W-IV. Almost 98% of students passed the course, while 86% of monolingual students did. The information suggests that these students might speak English at home but they might need support in addition to multilingual students in the writing category W-III. Although the majority of FYW students are in the writing category W-II, we did observe a considerably higher percentage of multilingual students in the writing category W-III and a higher percentage of monolingual students in the writing category W-IV. These students would be placed into remedial courses according to the previous process, prolonging their college schooling. Now, they could explore their literacy journey and place themselves into college-level courses.

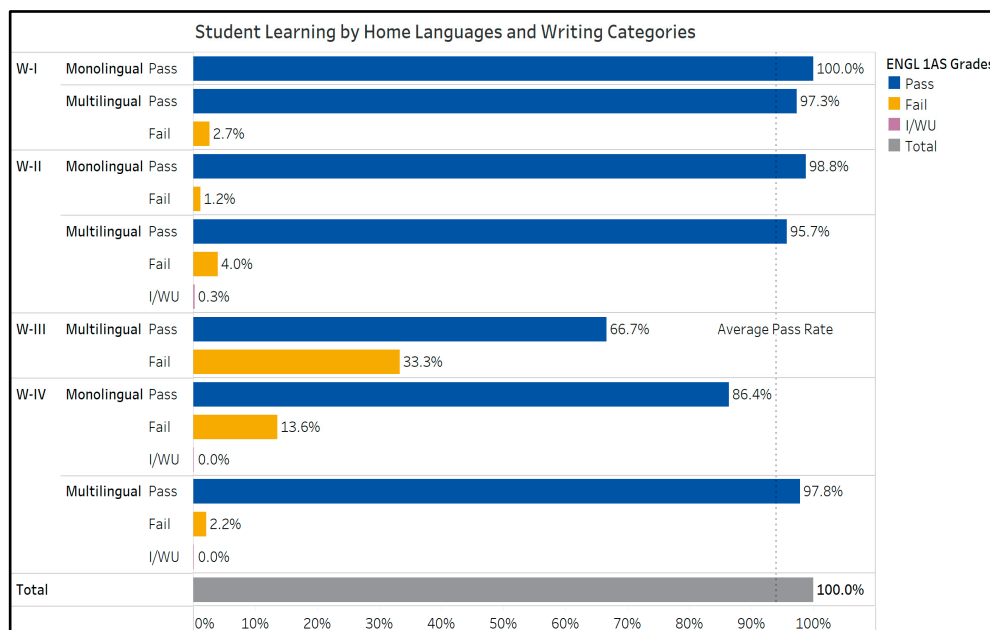


Figure 3. Student learning in the two-semester FYW course.

4.2. Inclusiveness

In the FYW program, inclusiveness starts with how well we serve general SJSU students. In this section, we examine in particular how well students are doing before and after implementing curricular changes. Specifically, we examine the overall effects of the new course, the two-semester Stretch, to ensure such an endeavor. The pilot FYW course, Stretch, launched in 2014, so we divided ENGL 1A into two timeframes. The course pass rate of Stretch is based on ENGL 1AS, as students need to complete both courses to fulfill course completion. The results show that 94% of students could complete their FYW courses after implementing the new curriculum, as shown in Figure 4.

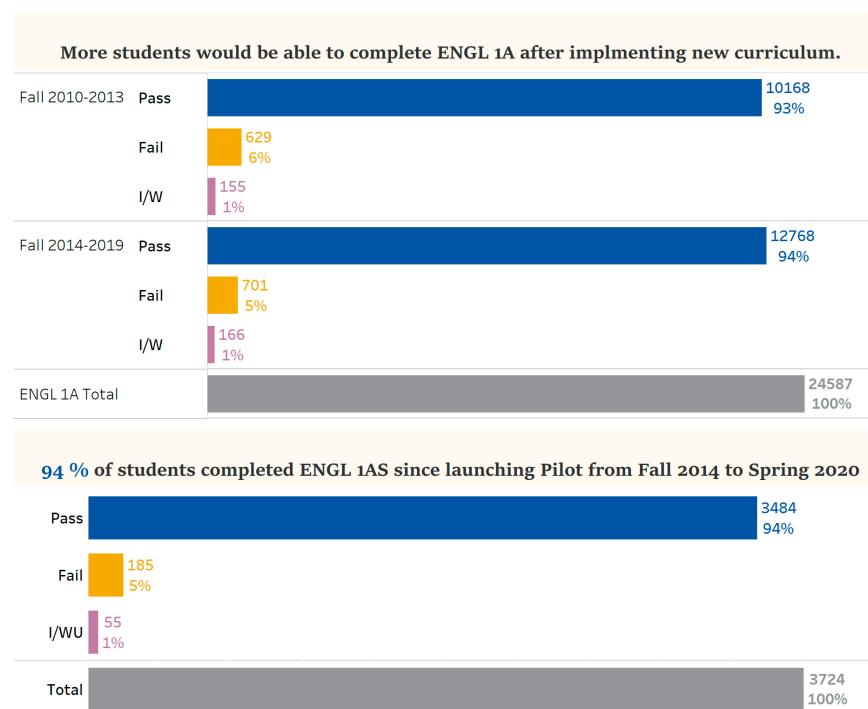


Figure 4. One-semester course outcomes in the FYW program.

As the pass rates of FYW courses ranged from 93% to 94%, we concluded that the course outcomes are similar. Our FYW students did not suffer from the consequences of any particular courses. The results are also empirical evidence that students could make their own choices and place themselves into courses rather than test score placement.

4.3. Equity and the FYW Program

This section explores the course outcomes of the FYW program in terms of their demographic backgrounds. The results show that students have similar academic performance regardless of their demographic backgrounds. The average equity gaps for longitudinal data are less than 3%. The equity gaps within 3% suggested that the FYW program could host various backgrounds of students and support student success in the FYW Program, as shown in Table 3.

Table 3. Equity gaps in the FYW courses.

Courses	Gender	URM	Low Income	First-Generation
Stretch	2.0%	3.0%	0.0%	1.0%
Fall 1A	1.0%	3.0%	1.0%	2.0%
Spring 1A	2.0%	4.0%	1.0%	2.0%

Although the FYW program has sustained equity efforts throughout the program, the observable impact of the pandemic (spring 2020) can be seen in Stretch and Spring ENGL 1A. Before the pandemic (spring 2019), there are no equity gaps in Stretch courses. A semester later, the COVID-19 pandemic took place, and observable impacts are shown in 2% equity gaps for gender and URM groups. Specifically, women and the URM group underperformed in that particular semester. Some campus-conducted interview studies validated how women have suffered from such course outcomes or household chores and childcare obligations.

5. Discussion

This study aims to explore how multilingualism and active learning approaches might foster student learning and its sustainability in the FYW program. The research findings have demonstrated how FYW students demonstrate similar academic performance regardless of their demographic or linguistic backgrounds. The findings imply that in multicultural societies, integrated policies aim to promote social cohesion, respect for diversity, and equal opportunities and sustainability for all members of society. These policies should not only encompass a range of measures including employment programs, housing policies, and anti-discrimination laws but also cultural integration initiatives, language policies, and education policies, which are equally crucial in ensuring inclusivity and sustainability. The goal is to create inclusive societies where individuals from diverse backgrounds can participate fully and contribute to society [48]. However, the study findings have demonstrated that the effectiveness of integration policies can vary depending on various factors, such as political context, social attitudes toward diversity, and institutional support for multiculturalism. The success of such policies is not only about their implementation but also how they address the root causes of inequity and exclusion and promote social inclusion and equality of opportunity. This study provides a glimpse of how policies can have a sustainable impact on the education system and how students can benefit from such changes via the case of the FYW program.

The FYW program implemented the state-wide policy to design the curriculum program and invited them to study the impacts and outcomes. It provides us with an opportunity to reflect on multiculturalism, inclusiveness, and equity-minded assessment in the FYW program. But, the question the findings make us reflect on is the following: is the current process more sustainable? The study findings imply that writing classrooms do not only train and capture our attention regarding language literacy but are also the very place

where we encounter these high school graduates and their social practices. It is in this very classroom that we invite and host the language diversity of students. And, by doing so, our classrooms embody multilingualism.

Multilingualism is not a social problem; instead, it invites the lens of hospitality, exchanging languages, and encountering cultures, and its very phenomenon is always emergent on a dynamic planet. Linguists—socio-linguists especially—invite this view. If we look at the question of hosting languages to (1) invite difference, (2) raise awareness of language bias, (3) articulate the challenges of and strategies for negotiation of meanings within diverse language groups, and (4) foster dispositions of humility, curiosity, and negotiation among all stakeholders and shift our lens to a trans-lingual lens, then the problem of equity becomes the promise of hospitality, a threshold to a thriving multilingual community and language sustainability. Multilingualism is who we are, and it is not our problem but our practice.

We can change it via the specific practice that linguists are now calling “trans-linguaging”. Trans-linguaging transforms process by giving multilingual students access to a social space by combining various aspects of their personal histories, experiences, and environments, as well as their attitudes, beliefs, ideologies, and cognitive and physical capacities, into a coherent and meaningful performance that becomes a lived experience [49]. It provides them space to express their identity and affirm their linguistic assets; it is not assimilation but rather reshapes their identity through such a process. It also aims to cultivate literacy through the ability to read, listen, or write something in one language and summarize or interpret it in another language.

The research findings also suggest that FYW students demonstrate similar academic performance regardless of their demographic or linguistic backgrounds. Before students enrolled in the FYW program, they explored their language literacy. In addition, the data show that the average equity gaps in the longitudinal data are less than 3%. This suggests that students can leverage their diverse linguistic and cultural backgrounds to support their success in the FYW Program. These results challenge common assumptions about the achievement gaps that often exist between students from different demographic groups. The narrow equity gaps revealed by the study results suggest that educational interventions and support structures can effectively mitigate disparities in student achievement. The results indicate the sustainability of the FYW program as it embraces and builds upon the linguistic and cultural assets students bring to the classroom.

6. Conclusions

This study has shown the sustainability of the FYW program in promoting multilingualism among multilingual, under-represented, and first-generation students. This study illustrates different approaches to multilingual education and highlights how countries could promote multilingualism to reflect the linguistic diversity of their people in education. The research findings suggest that the extended, scaffolded curriculum of the Stretch FYW program effectively supports the academic success of students from diverse linguistic backgrounds. Both courses in the FYW program reflect the language diversity of students and ensure sustainable efforts via RCW, the online module before the FYW program. The equivalence in learning outcomes between multilingual and monolingual students challenges common assumptions that linguistic diversity poses a barrier to academic performance. Instead, these findings suggest that with the appropriate curricular structure and pedagogical approaches, multilingual students learn equally well with their monolingual peers in the FYW program. Such sustainable efforts have promoted an inclusive and equitable learning environment as their entry to college learning experience.

The empirical results of this study suggest that rather than separating students based on their multilingual and monolingual backgrounds or demographics, support and resources need to be allocated to students who need more resources and support. The findings of this study identified that these students are monolingual in the writing category W-IV and multilingual in the W-III category. The findings suggest that in achieving inclu-

sivity in promoting quality learning and sustainability, universities should first identify at-risk students and allocate support and resources to these students, and this is not a simple match with demographics. Moreover, considering that pedagogical inclusiveness and multilingualism are widespread phenomena in higher education, the findings can contribute to the sustainability of education.

7. Limitations and Suggestions for Further Studies

The FYW program has gradually transitioned into the new curriculum since 2020, starting with revising the previous curriculum based on the data. During this ten-year period, the pandemic, resource allocation changes, and administration turnover occurred. Studies have been performed to capture how the COVID-19 pandemic impacted the sustainable, equitable, and inclusive efforts of the FYW program [50] and how the FYW program has implemented data-driven results to solve the crisis and create opportunities [51]. Although the FYW program and faculty have encountered challenges, such as the only pandemic to happen in the last century, they have continued with a data-driven language curriculum policy. The sustainable curriculum revision is based on qualitative and quantitative data and has continuously improved student learning.

The new launch of the online module RCW in 2023 further brings inclusiveness into the curriculum, and it also demonstrates the sustainability of the process for its innovative continuity. For further studies, this longitudinal study proposes the following suggestions. First, educators should continue with the framework of university learning about writing practices within a multilingual community. It is also recommended that stakeholders of the FYW program should continue communicating results via data, including both mixed and quantitative data for inferential studies. Also, the approaches to collaborating with interdisciplinary faculty, staff, and students should be strengthened and encouraged. In addition, the effective equity-minded assessment approach should be continued with data-driven decisions. Finally, as some FYW program faculty have been integrating Artificial Intelligence Literacy in the curricula, it would be interesting to study how it transacts with multilingualism and affects student learning in the future.

After implementing the innovative FYW program, the team has found that an equity mindset is essential for global multilingual policies and implementation. In other words, the stakeholders of policy implementation mechanisms. When the stakeholders and the public refused to embrace an equity mindset, the policy fell apart, as it ran through formality and functionality. The FYW faculty and staff recognized the importance of an equity mindset in educational policy implementation. The challenges are also reflected in the trust issue, as it can be challenging to find team players you can trust. During the implementation process, trust issues were raised several times by various stakeholders. Most of those were able to resolve promptly, and that has sustained the policy implementation mechanisms.

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