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Equity Playbook Initiative
Implementation in Kentucky

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Prepared for engage2learn

June 12, 2024



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Equity Playbook Initiative implementation in Kentucky

Efficacy Study with engage2learn: Promising Evidence

Conducted by Rachel L. Schechter, Ph.D., Paul A. Chase, Ph.D., & Kenny Lam
[LXD Research](#) at Charles River Media Group

Abstract

The Equity Playbook Initiative Implementation in Kentucky underwent an efficacy study conducted by LXD Research during the 2022-2023 school year. The study aimed to assess the initiative's impact on student academic achievement and school climate. A total of 55 public schools participating in the Equity Playbook Initiative were compared with 240 statistically similar non-participating schools. The demographic breakdown of the sample included 65% economically disadvantaged students, with a significant representation of 30% African American students and 35% non-white students. The findings indicated that Equity Playbook schools significantly improved key academic outcomes, particularly among economically disadvantaged students. Notably, students attending Equity Playbook schools, especially those with a high percentage of economically disadvantaged students, showed significant improvement in testing on grade level in Science and Math compared to their counterparts in non-participating schools. Additionally, the study revealed a reduction in the Kentucky Summative Assessment (KSA) achievement gap for economically disadvantaged students among participating schools. Furthermore, the completion rates of advanced courses for African American and non-white students in Equity Playbook schools showed marked improvement compared to the schools that did not participate in the initiative. Qualitative interviews with state, district, and school-level educators and staff also provided positive feedback regarding the effects of the Equity Playbook Initiative. The findings suggest that the Equity Playbook Initiative holds promise in promoting student academic achievement and enhancing school climate. This study encourages further evaluation and broader adoption of the Equity Playbook Initiative in various districts and schools across Kentucky to leverage its potential benefits.



Key Findings

The goal of this study by LXD Research was to review the implementation and impact of the first year of the Equity Playbook initiative carried out by the Kentucky Department of Education's DEIB Team and engage2Learn in its first year (2022-2023).

A preliminary review of quantitative evidence showed several promising results, in which participating schools and districts showed improvement in various indicators of student academic achievement, particularly among schools primarily serving economically disadvantaged students; as well as positive effects on school climate. Of particular interest was a series of findings indicating reductions in the achievement gap among Equity Playbook-participating schools in various student subgroups and the improvement of completion rates in advanced courses, particularly among African American student populations and non-White student populations.

Qualitative findings from several semi-structured interviews with state, district, and school-level educators and staff across Kentucky also indicated that the Equity Playbook Initiative intervention was associated with positive effects. State, district and local school representatives also indicated that the Equity Playbook Initiative had the potential to demonstrate greater effects in future years, especially as more districts and schools in Kentucky adopt the program. Interviewees indicated that engage2Learn effectively promoted growth by supporting teachers, school leaders, and district leaders.

School Level Findings

- Students attending Equity Playbook schools (Grades K-12) became 3% more likely to test on grade level in annual KSA-Science tests from 2022-2023, a 2% greater increase than comparison school students.
- Among students in Equity Playbook schools in which more than 90% of students are economically disadvantaged, students became 10% more likely to test on grade level in KSA-Science than their comparison group peers and 8% more likely to test on grade level in KSA-Math.
- Across Equity Playbook participating schools, the majority of grade levels in which the Kentucky Summative Assessment (KSA) was administered showed a reduction in the KSA-ELA achievement gap for economically disadvantaged students from 2022 to 2023 (defined by the relative percentage of students who tested on or above grade level).
- Among Equity Playbook schools, the percentage growth of advanced courses (e.g., AP, Dual Credit, and IB) completion for African American increased by 4.4 percentage points; higher than the 2.4 percentage points of comparison schools.



Similarly, the completion rate among Equity Playbook schools for non-white students improved by 3.8 percentage points; higher than the 1.5 percentage points as observed in the comparison schools.

District Level Findings

- Equity Playbook school districts showed modest Spring 2022 - Spring 2023 gains in the overall percentage of students on grade level in Math, ELA, & Science (+1% to +3%).
- Equity Playbook school districts showed an improvement in all nine areas of school climate reported by the Working Conditions Survey, outperforming comparison districts in key areas such as emotional well-being and belonging, school leadership, and staff-leadership relationships.
- The ELA achievement gap between White and African American Students dropped from 19.7% in 2022 to 15.4% in 2023 among Equity Playbook participating districts. In contrast, comparison districts recorded a slight worsening of the gap from 20% to 20.2%. A similar trend was observed in the ELA achievement gap between White and Hispanic/ Latinx students.



Table of Contents

| | |
|---|-----------|
| Introduction | 1 |
| About the Equity Playbook | 1 |
| About engage2learn | 1 |
| Methods | 2 |
| Treatment Group: Equity Playbook Program Key Features | 2 |
| Evaluation Questions | 6 |
| Research Design | 7 |
| Sample Description | 9 |
| Qualitative Interviews sample | 9 |
| Results | 10 |
| Quantitative Analyses: Student Achievement | 10 |
| Equity Playbook District-level Data | 11 |
| Economic Disadvantage Achievement Gap Subgroup Finding | 12 |
| Treatment-Comparison Longitudinal Student Achievement Findings | 13 |
| Economically Disadvantaged Students Growth in Math & Science Percentage on Grade Level: Equity Playbook vs. Comparison Group Change | 13 |
| Impact Kentucky Working Conditions Survey of KY Educators | 18 |
| Qualitative and Supplementary Descriptive Analyses | 19 |
| Qualitative Interviews Results Summary - KDE and district-level interview | 19 |
| Areas for Improvement | 21 |
| Interviewee Recommendations | 22 |
| Supplemental Descriptive Analyses: | 23 |
| Limitations | 24 |
| Conclusion & Next Steps | 25 |
| References | 26 |
| Appendices | 28 |
| Appendix 1. Post-PSM School-Matched Test for Equivalence and Group Statistics | 28 |
| All Schools Combined Post_PSM | 28 |
| Appendix 2: Advanced Coursework Enrollment and Completion | 29 |
| Analysis on the Enrollment in Advance Courses | 29 |
| Analysis on the Rate of Completion after Enrollment | 30 |
| Appendix 3: Qualitative Interview Prompts | 31 |
| Appendix 4. Equity Playbook Participating Districts | 33 |



List of Tables and Figures

| | |
|---|----|
| Figure 1. Problem of Practice Identification Template | 2 |
| Figure 2. eGrove Coaching Overview | 3 |
| Figure 3. Illustration of the eSuite digital platform. | 4 |
| Figure 4. Equity Playbook Logic Model | 4 |
| Figure 6. 22-23 Math Proficiency Change: Change in Student Math Proficiency from Spring 2022 - Spring 2023 | 10 |
| Figure 7. 22-23 Science Proficiency Change: Change in Student Science Proficiency from Spring 2022 - Spring 2023 | 10 |
| Table 1. Change in KSA ELA Achievement Gap Among Equity Playbook Schools from Pre-Equity Playbook (SY 21-22) to Post-Equity Playbook (SY 22-23) | 11 |
| Figure 8. Percentage of Students on Grade Level in Science: Treatment vs. Comparison Change from 2022-2023 | 12 |
| Figure 9. Students Percentage on Grade Level in Science (Schools Serving Highly Economically Disadvantaged Students) | 13 |
| Figure 10. Students Percentage on Grade Level in Math (Schools Serving Highly Economically Disadvantaged Students) | 14 |
| Figure 11. 22-23 Math Proficiency Change: Change in Student Math Proficiency from Spring 2022 - Spring 2023 by District Condition | 15 |
| Figure 12. Advanced Coursework Subgroup Finding: Difference in advance coursework completion between Equity Playbook Schools and Comparison Schools | 16 |
| Figure 13. Average Percent Improvement of Favorable Responses from 2021-2022 survey to 2022-2023 survey: Treatment vs Comparison Districts | 17 |
| Figure 14. Percentage of Equity Playbook Districts with Improvement in Percentage of Favorable Responses from 2021-2022 survey to 2022-2023 survey | 18 |
| Figure 15. Gap between percentage of White and African American Students Proficient in ELA | 22 |
| Figure 16. Gap between percentage of White and Hispanic/Latinx Students Proficient in ELA | 23 |



Introduction

About the Equity Playbook

The Equity Playbook is an initiative led by the Kentucky Department of Education (KDE) Diversity, Equity, Inclusion and Belonging (DEIB) Team. Partnering with engage2learn (e2L), the Equity Playbook is an initiative for district and school leaders, administrators and teachers to address equity through personalized coaching on evidence/research-based practices, content and resources to address opportunity gaps in the five Equity Pillars. The five Equity Pillars are:

- Student achievement
- Utilization of funding and resources
- Highly effective staff and high-quality instructional resources
- Disproportionality relative to student discipline; and
- Culture and climate

In addition to the five Equity Pillars, the Equity Playbook seeks to improve educators' sense of belonging in the school, and teacher retention. As a partner of the Equity Playbook initiative, e2L was responsible for implementing personalized coaching with a subset of the District/School Leaders, Instructional Coaches, School Counselors, and Teachers of the Kentucky Department of Education, beginning in the 2022-2023 school year.

About engage2learn

e2L is an organization that provides responsive, evidence-based coaching solutions. The e2L approach to educator support provides an in-person and virtual coaching system that builds capacity and engagement in public schools, and was adopted to teach district leaders, school leaders, and school staff and educators the skills needed to achieve the goals of the Equity Playbook Initiative.

As public education in the United States and Kentucky faces teacher shortages, it is a priority for states to alleviate staffing challenges. Spotlighted by prior research, perceived working conditions and quality of teacher preparation and training programs are key factors in teacher retention. As such, the situation presents needs and opportunities for innovative solutions like e2L in providing teacher training and professional development.



Methods

Treatment Group: Equity Playbook Program Key Features

The goal of the Equity Playbook initiative is to coach educators to ensure equitable access and outcomes for the diverse student populations in Kentucky as laid out by the Equity Pillars. Before starting the coaching program, each participant or team of participants was guided to select a problem of practice related to one of the Equity Pillars. The process of coaching is described below:

- **Step 1:** Review the Equity Pillars and decide which domain or domain(s) to focus on for the Equity Playbook.
- **Step 2:** Use the Data Analysis Protocol Framework to review data around the domain to identify and narrow down a problem.
- **Step 3:** Reflect and critique the problem of practice.
- **Step 4:** Discuss the problem of practice with the coach.

Throughout the process, support is provided to educators. For instance, the Problem of Practice Identification Template is used to help document educators' problems of practice, outline their action steps, and reflect on progress towards their goal.



Figure 1. Problem of Practice Identification Template

| |
|--|
| District or School Name: |
| District or School Equity Playbook Team: |
| Problem of Practice Identified (state in two to three sentences what problem of practice your school/district identified as a focus area for the equity playbook): |
| Describe what data/information was used to identify this problem of practice: |
| What will success look like? (Describe what you/your team hope to accomplish by the end of the school year): |
| Complete at End of School Year: Describe the actions that supported improving the problem of practice and you/your team's perception of progress: |

Moreover, e2L also brought in their proprietary resources and tailored them to the needs of the implementation of the Equity Playbook initiative. For example, all coaching sessions follow the e-Growe model, which is a time-tested, research-based coaching model that provides a reusable, scalable framework for professional and personal growth for educators.



Figure 2. eGrove Coaching Overview

| e-Grove | Descriptor |
|-----------------------|---|
| e-evidence | <ul style="list-style-type: none">• Every eGrove Coaching Conversation starts and ends with evidence!• This evidence shows that the coachee is growing and completing their next steps. |
| G-Goal Setting | <ul style="list-style-type: none">• The goal for each coaching conversation will be on a competency from the Kentucky School Leadership Rubric• During this part of the coaching conversation, the coachee chooses his or her competency of growth from a sequenced timeline of professional learning competency |
| r- Reality | <ul style="list-style-type: none">• Coachee reflects on the rubric to determine the current reality |
| o- Options | <ul style="list-style-type: none">• Coach/coachee collaborative effort in brainstorming and sharing strategies, ideas, resources etc. |
| w- Will | <ul style="list-style-type: none">• Coachee considers brainstormed options and commit to those they want to try between now and the next conversation |
| e-evidence | <ul style="list-style-type: none">• Coach/coachee collaboratively determine evidence the coachee will bring to show progress and impact |

All coaching evidence and processes are captured using e2L's eSuite digital platform. On the platform, educators identify their growth opportunity, schedule coaching, develop competencies, and earn badges that certify their improvements.



Figure 3. Illustration of the eSuite digital platform.



Overall, the implementation of the Equity Playbook was hypothesized to have a positive impact on the equity pillars for participating districts. The Logic Model and the Theory of Change of Equity Playbook lays out the input, activities, and assumptions that are required to be in place for the impact to materialize.

Figure 4. Equity Playbook Logic Model

| Inputs | Outputs/ Activities | Short-term Outcomes | Long-term Outcomes | Impacts |
|--|--|---|---|---|
| <ul style="list-style-type: none"> E2I coaches Regional Coordinators KDE staff eGrowe Platform | <ul style="list-style-type: none"> E2I Trainings 1-1 Coaching Sessions (e2I coach: school leader) 1-1 Coaching Session (school leader: teacher) Resources and Trainings from KDE and Regional Cooperative (RC) staff | <ul style="list-style-type: none"> Attendance to coaching sessions Positive relationship between coach/coachee Utilization of eGrowe Utilization of resources | <ul style="list-style-type: none"> Improved cultural competencies with participants Improved culturally relevant/ sustaining pedagogy Improved stakeholder perceptions such as student/family sense of belonging (begin with students/families traditionally at the margins) | <ul style="list-style-type: none"> Improvements across the equity pillars for participating districts: <ul style="list-style-type: none"> achievement, disproportionality in behavior, culture/climate, instruction, and utilization of resources. |

Figure 5. Equity Playbook Theory of Change



| IF | THEN |
|---|--|
| If the e2l coaches train the regional DEIB coordinators and KDE DEIB staff on the e2l eGrowe platform... | then staff will understand how to log attendance in the coaching sessions accurately and with fidelity. |
| If the e2l coaches, in conjunction with KDE and the regional DEIB coordinators, train district and school leaders on the equity playbook... | then participants will understand how to utilize the resources and training materials, including the eGrowe platform to support their problem of practice. |
| If coaching session schedules are followed and attendance is consistent... | then participants will increase their cultural competencies and have the potential to reach their goals of their problem of practice. |
| If participants allocate time to develop their problem of practice and use stakeholder input to develop their strategies... | then stakeholders will report higher levels of satisfaction and sense of belonging. |
| If cultural competencies increase and stakeholders report positive perceptions towards the school/district... | then the problem of practice identified will show improvements. |

Evaluation Questions

The evaluation aims to answer the following questions:

- 1. How, if at all, did the Equity Playbook affect student achievement on the Kentucky Summative Assessment (KSA) in schools that implemented the Equity Playbook compared to schools that did not?**
 - a. How did the impact vary by school, grade, and student subgroups (e.g., economically disadvantaged students and students with different ethnic backgrounds)
 - b. What did the teachers perceive as the reasons for the improvement in student achievements due to the Equity Playbook, if any?

- 2. How, if at all, did the Equity Playbook affect the culture and climate of the districts/ schools that implemented the Equity Playbook compared to the districts/ schools that did not?**
 - a. Did educators in participating districts rate the culture and climate of their district more highly than educators in districts that did not receive the Equity Playbook?
 - b. Do staff and educators credit the Equity Playbook with improving the culture and climate in their district/school?



Research Design

The evaluation used a mixed-methods approach, including a propensity-matched quasi-experimental design with secondary data, complemented by descriptive evidence and interviews. This mixed-method approach allows researchers to understand how the coaching provided by e2L affected student achievement, both quantitatively through the change in scores as well as qualitatively through measuring educator perspectives on the Equity Playbook initiative.

This evaluation is a report of the impact of the first year of what was designed as a multi-year implementation. Although not all aspects of the Equity Playbook were expected to be in effect in the first year of the program, the report provides preliminary insights into the potential impact of the initiative. Student achievement findings were reported as descriptive findings due to the Kentucky School Report Card data being reported in aggregate at the districts and school levels, making schools and districts the unit of analysis for this report (KDE, 2023). This Kentucky population-level study, therefore, reported any observed change in the districts and schools across the state.

The qualitative and descriptive data aim to provide additional depth to our quantitative findings with possible explanations for the underlying workings of the program, as well as some early indicators of school culture and climate shifts on campuses.

Secondary Data Analysis Approach

To determine the impact of the Equity Playbook on the five Equity Pillars, this study analyzed publicly available data collected by the KDE; namely the Kentucky School Report Card data sets (collected annually). Furthermore, this study also analyzed factors related to teacher retention from the Impact Kentucky Educator Working Conditions Survey of educators (Impact Kentucky, 2024).

To isolate the effect of the implementation of the Equity Playbook, we compared key academic and school culture and climate outcomes between schools and districts that participated in the Equity Playbook Program (i.e., the Equity Playbook Group) and those that did not (i.e., the Comparison Group). In the Equity Playbook's first year, school leaders and educators from only 55 schools in 18 participating districts have participated. These 55 schools, therefore, constitute the treatment group, and 239 propensity-matched schools with no Equity Playbook exposure represent the comparison group.

This report compared the change from baseline (i.e., the 2021-2022 school year) outcomes to those in the 2022-2023 school year for both the Equity Playbook and Comparison Groups. To ensure baseline equivalence of academic outcomes and demographic characteristics, LXD Research applied Propensity Score Matching (PSM) procedures to construct a matched sample of students from the full comparison group with the PSM plug-in for SPSS Version 28.0 (Bertsekas & Tseng, 1988; Hansen, 2004; Ho,



Imai, King, & Stuart, 2011; Thoemmes & Liao, 2013). PSM is based on logistic regression, with the outcome specified as a dichotomous indicator of whether or not a student was in the treatment condition. PSM procedures were conducted separately for each grade level (i.e., elementary, middle, and high schools) to create a propensity score for each student in the dataset corresponding with the likelihood of treatment assignment. This approach provided a vector of data elements likely related to outcome or treatment participation.

Baseline scores per grade from state tests and all available student-level and school-level demographic data elements were included in the propensity score matching procedure. Student-level covariates also included: gender; race/ethnicity dummy coded for White, Asian, Black, Indigenous, Pacific Islander, Hispanic, Multiple Race/Ethnicities, and White; learning English proficiency (LEP) status; special education status; homeless status; economically disadvantaged status; and age. Next, the PSM matching algorithm was applied to select the matched comparison group of students from the original comparison group. LXD Research created the final matched sample by considering one-to-one, nearest neighbor matching with a caliper and without replacement. Propensity scores and covariates were evaluated for balance between the treatment and comparison groups.

Robustness checks were conducted by analysts by using variations on original propensity score parameters to ensure the most appropriate propensity score matching algorithm was used, as defined by the most balanced observable characteristics between treatment and comparison students. The result of the PSM was a sample that met What Works Clearinghouse standards for baseline equivalence, with mean differences between Equity Playbook and Comparison groups less than .25 Standard Deviations in baseline math and science percent on grade level, as well as percent economically disadvantaged, but not by race/ethnicity (WWC Handbook, 2022). The results of this PSM matching can be seen in Appendix 1.

Qualitative Interviews

We have conducted a series of semi-structured interviews to describe the implementation of the Equity Playbook and determine staff and educator perceptions. These included four interviews with Kentucky DOE staff and regional liaisons. The primary goal of this first set of upper-level staff and administrative interviews is to describe the KY DOE's goals and perceptions of success regarding improving DEIB culture and teacher retention.

The second set of semi-structured interviews was with two (2) district leaders in Boone and Rowan Counties who were most directly involved in the Equity Playbook initiative. These semi-structured interviews focused on district-level goals, perceptions of success, and key responsibilities of leaders outlined in the Equity Playbook.



Finally, we have conducted seven semi-structured interviews at the school level with representatives from elementary, middle, and high schools. These included school principals, instructional coaches, and school counselors. These semi-structured interviews concentrate on the school—and classroom-level goals, perceptions of success, and key responsibilities of school-level administrators and educators that are outlined in the Equity Playbook.

All semi-structured interviews were conducted during the fall semester of 2023. We have used a combination of Saldaña’s (2012) descriptive coding procedures, the constant comparison method (Strauss & Corbin, 1998), and the thematic analysis method of Braun and Clarke (2006) to look for patterns in participant responses and use them to identify specific themes, to address our qualitative research questions.

Sample Description

Secondary Data Analysis sample

The analytic samples for the study of the Equity Playbook Initiative were created at the school level through a propensity score matching (PSM) process described in the section above. We began with 55 Equity Playbook schools and 513 Comparison Schools. After matching the schools by elementary, middle, and high schools, we removed 273 schools in order to balance the samples by percent on grade level for Math and Science, as well as demographic variables. This left a total of 240 matched comparison schools and 55 Equity Playbook schools. For the list of participating Equity Playbook Districts, please refer to Appendix 5.

Qualitative Interviews sample

Qualitative interviews were conducted with two groups of stakeholders: KDE district-level administrators and school-level educators. The interviews with KDE and district-level administrators were conducted virtually through Zoom in June and July 2023.

The KDE and district-level interviewee group consisted of 4 interviewees that represented state-, regional-, and district-level implementation of the Equity Playbook Initiative. They held DEIB or equity-related roles or, in some cases, professional learning and district-wide programs. Most interviewees had an active role in the rollout of e2L and the Equity Playbook, as they served on budget, salary, and HR committees. One or more respondents also helped their district pick the Equity Pillar of focus.



Results

Quantitative Analyses: Student Achievement

Student achievement was primarily indexed by academic performance in state assessments in Math and Science with the KY DOE School Report Card.

Assessment: Kentucky Summative Assessment

Kentucky students take the Kentucky Summative Assessments (KSA) to meet federal and state testing requirements. Previously, these tests were called the Kentucky Performance Rating for Educational Progress (K-PREP). They are developed by Kentucky teachers and aligned with the Kentucky Academic Standards in each content area. Students are given one out of the four possible ratings in each subject: Novice, Apprentice, Proficient, or Distinguished. In this study, a student will be considered to reach state standard in a subject if they obtained either a “Proficient” or “Distinguished” rating. We analyzed the Mathematics and Science results of KSA of our treatment group and comparison group in this study.

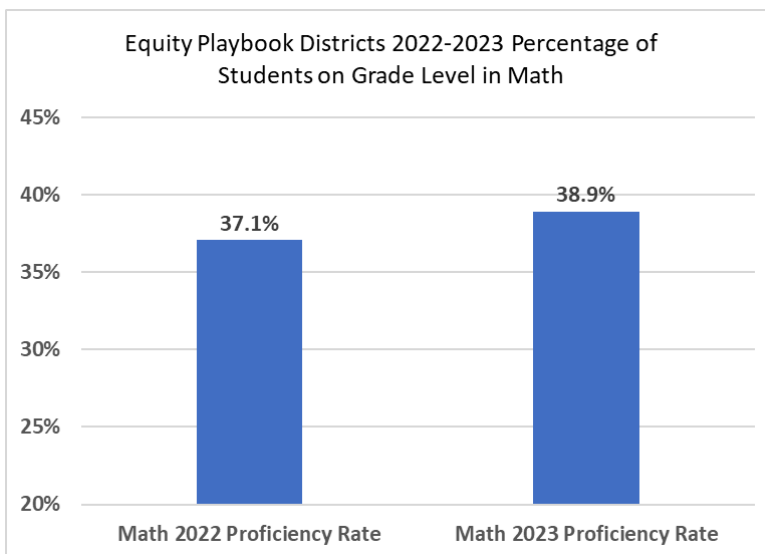
Longitudinal Student Achievement Findings

Preliminary District-level data were used to compare districts in which at least some school leaders and staff took part in the Equity Playbook Initiative intervention. The number and role of participants in each district varied. Given the District-level focus of these analyses, many schools were included that did not have school-level personnel participating in the intervention and therefore, were not included in the school-level analyses presented in this report. Data were also analyzed from Zelma Education (Zelma Education Version 1.0), a comprehensive, state assessment data repository Developed at Brown University that aims to integrate data from State Education Agencies with important school and district identifiers from the National Center for Education Statistics (NCES).



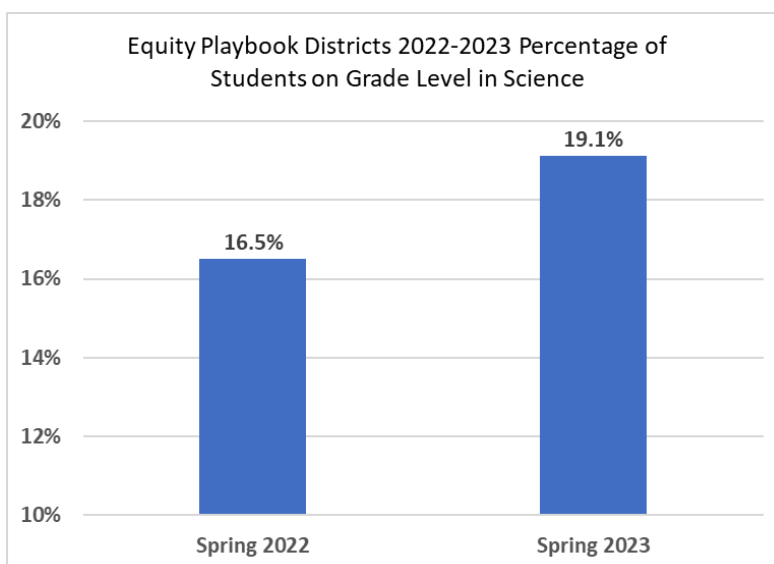
Equity Playbook District-level Data

Figure 6. 22-23 Math Proficiency Change: Change in Student Math Proficiency from Spring 2022 - Spring 2023



Math proficiency increased among Equity Playbook districts by 1.8% from Spring 2022 - Spring 2023.

Figure 7. 22-23 Science Proficiency Change: Change in Student Science Proficiency from Spring 2022 - Spring 2023



Science proficiency increased among Equity Playbook districts by 2.6% from Spring 2022 - Spring 2023.



Economic Disadvantage Achievement Gap Subgroup Finding

LXD Research analyzed data from the KY School Report Card from schools that received the Equity Playbook intervention during the 2022-2023 school year. The majority of (5 out of 7) grades in which the Kentucky Summative Assessment (KSA) was administered had a reduction in the ELA Achievement Gap among economically disadvantaged students (defined as the difference between the total percentage of students who tested on or above grade level and the percentage of economically disadvantaged students who tested on or above grade level) from 2022 to 2023 in Equity Playbook schools. The results of these comparisons are shown in Table 1 below.

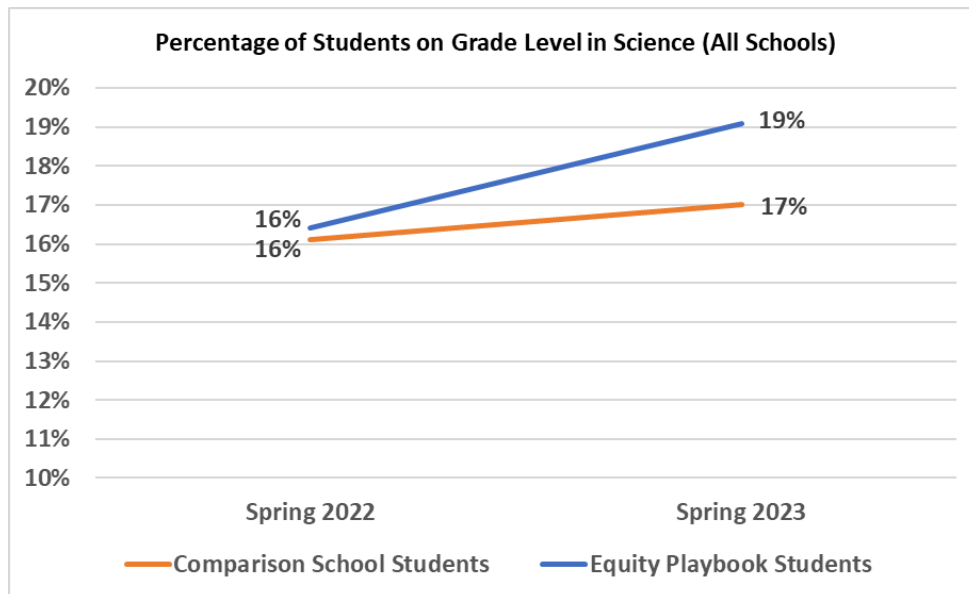
Table 1. Change in KSA ELA Achievement Gap Among Equity Playbook Schools from Pre-Equity Playbook (SY 21-22) to Post-Equity Playbook (SY 22-23)

| Grade Level | N (Equity Playbook Schools) | Equity Playbook School ELA Achievement Gap Change from 21-22 to 22-23 (The more negative, the better) |
|--------------------|------------------------------------|--|
| Grade 3 | 23 | 0.0 |
| Grade 4 | 25 | - 0.4 |
| Grade 5 | 21 | - 0.2 |
| Grade 6 | 17 | - 1.5 |
| Grade 7 | 13 | 0.0 |
| Grade 8 | 17 | - 0.1 |
| Grade 10 | 15 | - 1.5 |



Treatment-Comparison Longitudinal Student Achievement Findings

Figure 8. Percentage of Students on Grade Level in Science: Treatment vs. Comparison Change from 2022-2023



Note: N of schools was 239 for the comparison group and 55 for Equity Playbook in Spring 2022. N of schools was 233 for the comparison group and 53 for Equity Playbook in Spring 2023.

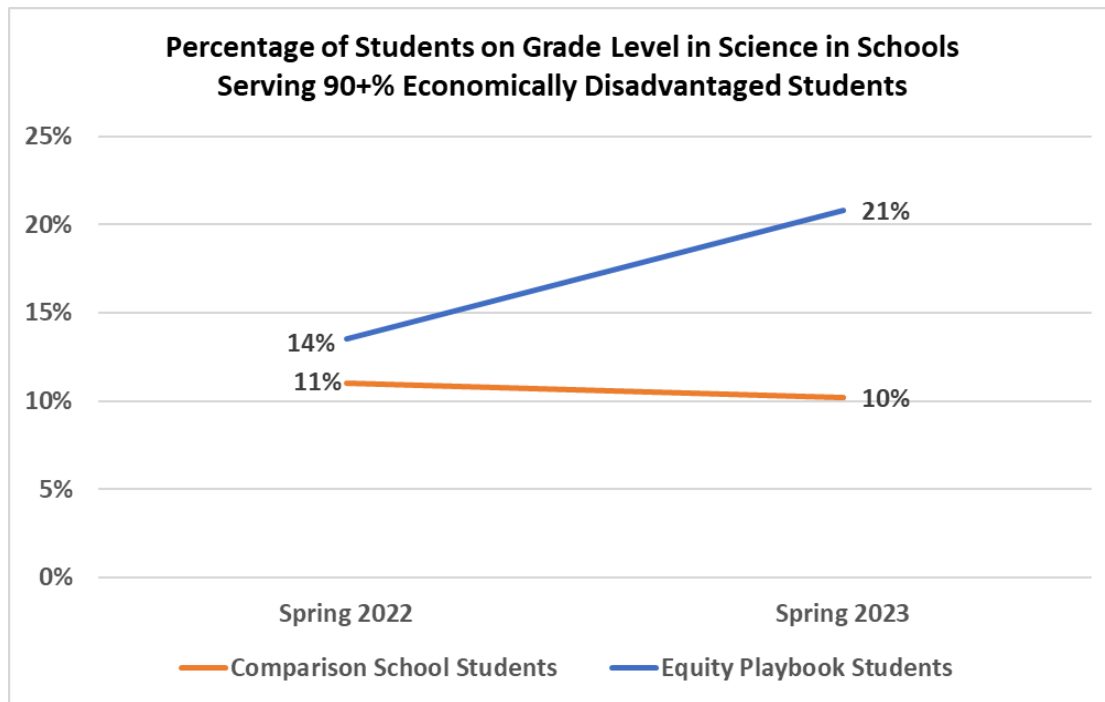
Students attending Equity Playbook schools (Grades K-12) became more likely to test on grade level in science than their comparison school peers.

Economically Disadvantaged Students Growth in Math & Science Percentage on Grade Level: Equity Playbook vs. Comparison Group Change

To determine whether there were any unique effects of the Equity Playbook on participating schools with a high percentage of economically disadvantaged students, we isolated schools in which more than 90% of students were economically disadvantaged.



Figure 9. Students Percentage on Grade Level in Science (Schools Serving Highly Economically Disadvantaged Students)

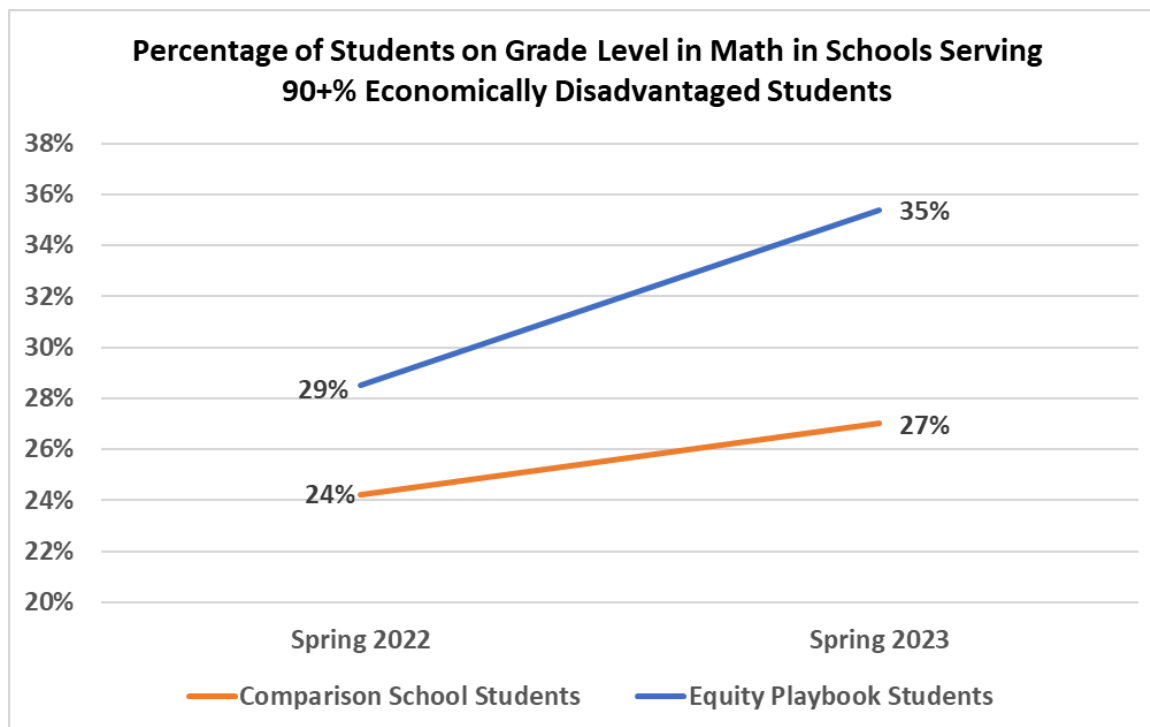


Note: N = 3 Equity Playbook schools and 8 Comparison Schools.

Among schools with a high percentage of economic disadvantage (schools with more than 90% students who were economically disadvantaged), students attending Equity Playbook schools (Grades K-12) became more likely to test on grade level in science than their comparison group peers.



Figure 10. Students Percentage on Grade Level in Math (Schools Serving Highly Economically Disadvantaged Students)



Note: N = 3 Equity Playbook schools and 8 Comparison Schools.

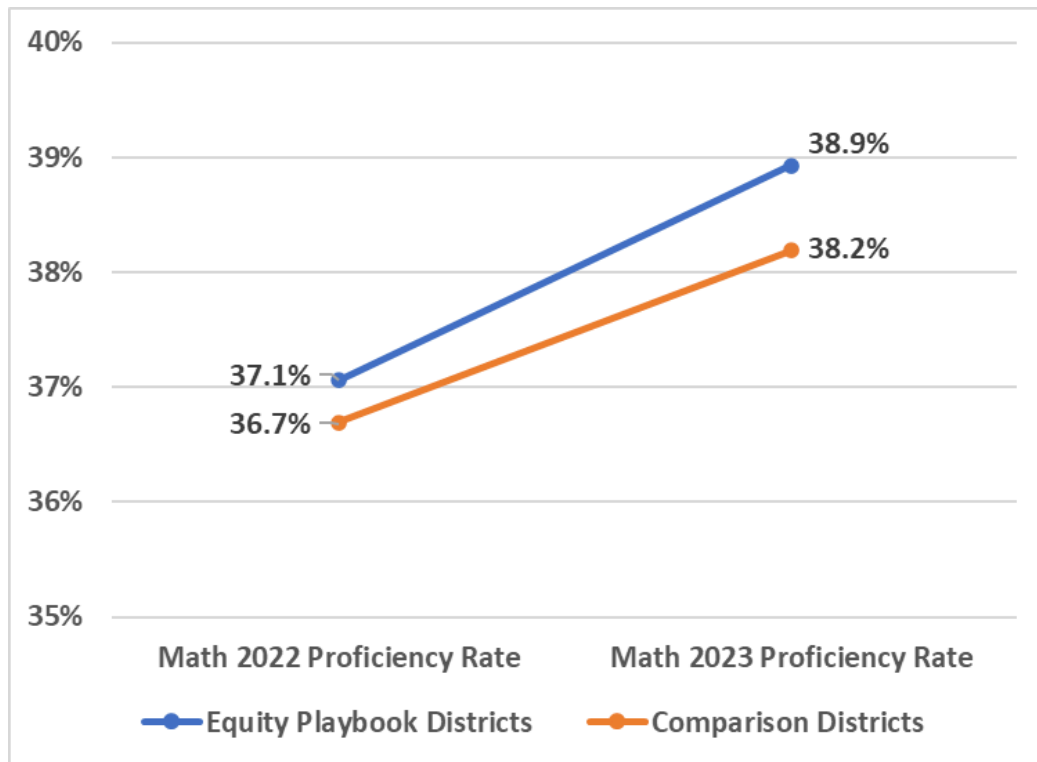
Among schools with a high percentage of economic disadvantage (schools with more than 90% students who were economically disadvantaged), students attending Equity Playbook schools (Grades K-12) became more likely to test on grade level in math than their comparison group peers.

District-level difference in change in Math Proficiency from 2022-2023

IES District-level data was also analyzed to determine whether Equity Playbook Districts differed in 2022-2023 school year math growth in percentage on grade level. Figure 11 below shows that both Equity Playbook and Comparison districts grew in their percentage on grade level in math, but this growth was slightly greater in Equity Playbook districts.



Figure 11. 22-23 Math Proficiency Change: Change in Student Math Proficiency from Spring 2022 - Spring 2023 by District Condition



Note: Zelma Education (Version 1.0). 2023. "Math Proficiency Rates by District in Kentucky for 2022-23." Accessed at <https://www.zelma.ai/q/BcPymcWime> on December 20, 2023.

Overall, when comparing the Equity Playbook and Comparison group with regard to math and science proficiency, these findings indicate slightly higher growth in the treatment group overall, and a notably higher level of growth in schools serving a high percentage of economically disadvantaged students.

Highly Effective Staff and High-Quality Instructional Resources

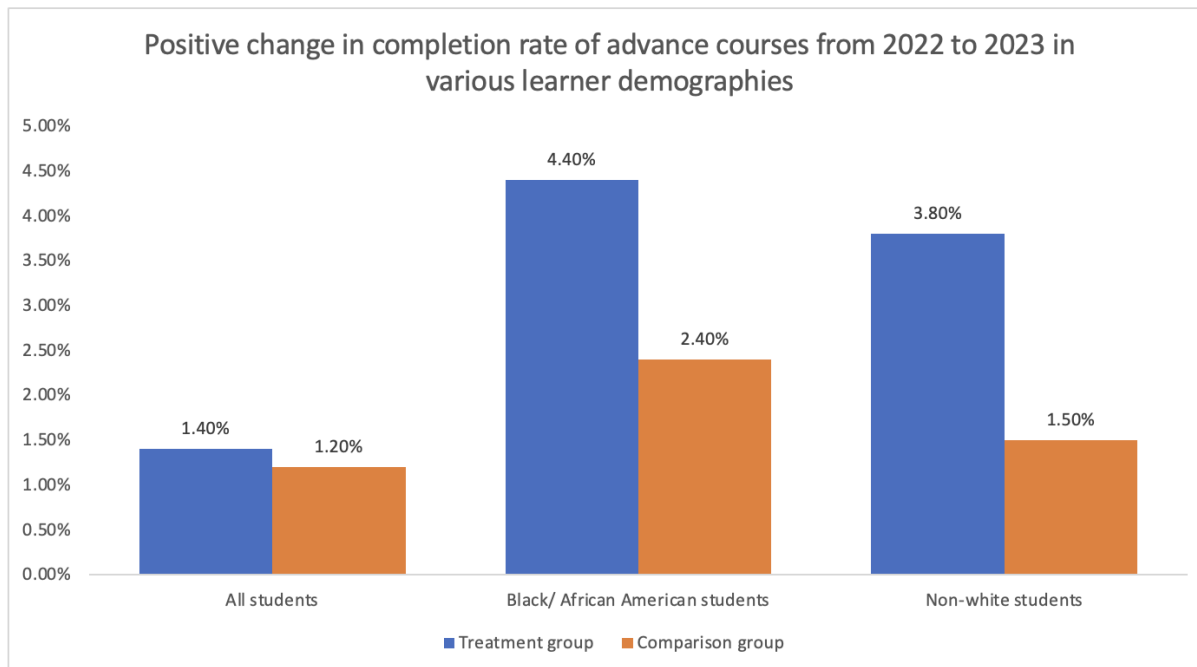
School Leadership, Managing Students, and Teaching Environment Scores were virtually unchanged from 2022 to 2023 for both the comparison and Equity Playbook groups (all measures stayed the same or increased by less than one percentage point). Therefore, full details were excluded from this report.



Advanced Coursework Findings

Completion rate of advance coursework is defined as the total number of students completed divided by the total number of students enrolled in their respective student subgroups.

Figure 12. Advanced Coursework Subgroup Finding: Difference in advance coursework completion between Equity Playbook Schools and Comparison Schools



Note: Treatment group (All students: N = 15; Black/ African American students: N = 10; Non-white students: N = 15)
Comparison group (All students: N = 92; Black/ African American students: N = 54; Non-white students: N = 92)

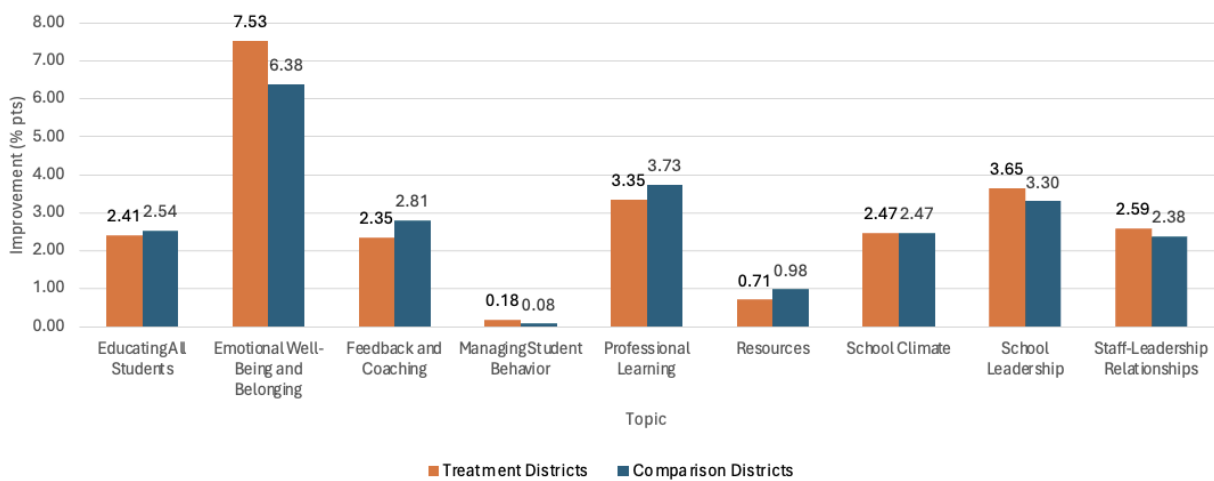
The non-white learners from Grade 10 to 12 in treatment schools, on average, showed a larger improvement in completion rate than their comparison group counterparts. The completion rate of Black students in the treatment group in advance coursework, for example, increased by 4.4 percentage points, as opposed to the 2.4 percentage point improvement in the comparison group. For more details, refer to Appendix 2.



Impact Kentucky Working Conditions Survey of KY Educators

In addition to data analyzed from the KY School Report Card data set, the biannual Panorama Impact Kentucky Working Conditions Survey of KY educators provided additional insights into change in Culture & Climate, and factors that predict teacher retention. The Working Condition survey is administered bi-annually, and it measures the perception of teachers and school leaders on nine different topics. The most recent survey was administered from November 1, 2023 – December 15, 2023, and the data became available in February, 2024. The last survey was conducted in the fall of 2021, before the Equity Playbook Initiative began. Results of Fulton Independent district were not reported in the Working Conditions Survey; therefore, only 17 Equity Playbook districts were considered in this analysis.

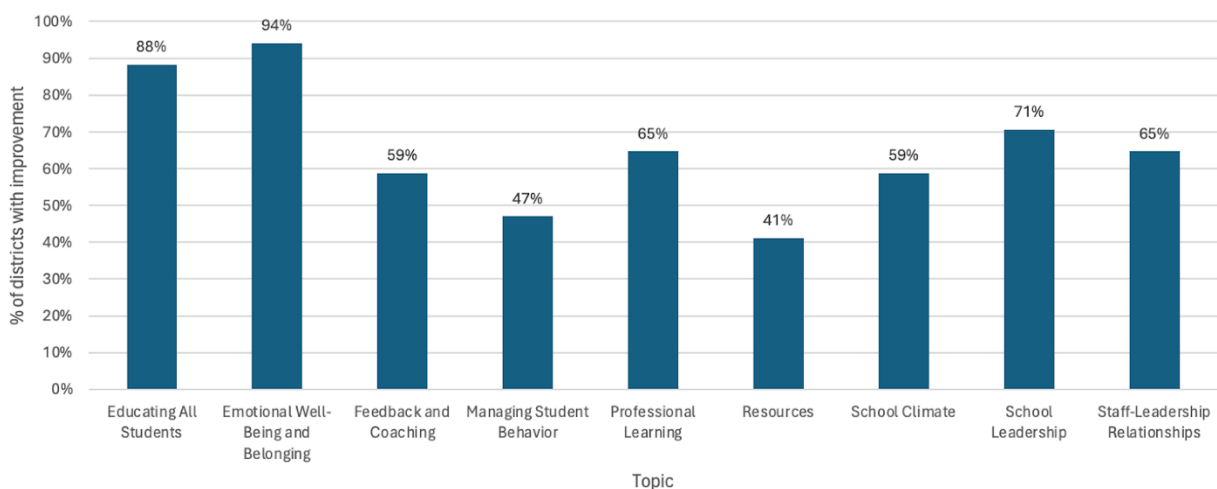
Figure 13. Average Percent Improvement of Favorable Responses from 2021-2022 survey to 2022-2023 survey: Treatment vs Comparison Districts



The treatment districts outperformed comparison districts in 4 areas: Emotional Well-Being and Belonging, Managing Student Behavior, School Leadership, and Staff-Leadership Relationships. Both Equity Playbook and Comparison Districts saw improvements in all 9 topics surveyed in the Working Conditions Survey. The area that experienced the most improvement is Emotional Well-Being and Belonging (7.53 percentage points), followed by School Leadership (3.65 percentage points) and Professional Learning (3.35 percentage points).



Figure 14. Percentage of Equity Playbook Districts with Improvement in Percentage of Favorable Responses from 2021-2022 survey to 2022-2023 survey



An examination of the performance of each of the 17 Equity Playbook districts found that the majority of districts showed improvements in aspects of Working Conditions between 21-22 and 23-24. 94% of Equity Playbook districts saw improvements in Emotional Well-Being and Belonging between the two surveys; 88% of all treatment districts improved in the “Educating All Students” metric. Year 1 foci varied to an extent across Equity Playbook schools and districts, and these findings highlight the diversity of priorities as districts divided their attention across multiple priorities.

Qualitative and Supplementary Descriptive Analyses

Qualitative Interviews Results Summary - KDE and district-level interview

In addition to the quantitative analyses, LXD Research conducted seven semi-structured interviews with district leaders, school leaders, coaches, and counselors. Educators were asked to reflect on Equity Playbook Goals, the quality of e2L Coaching, the Effect of the Equity Playbook, and Suggestions for Equity Playbook Implementation.

The semi-structured interviews consisted of 15-19 questions (depending on the interviewee’s role) in 4 categories: Equity Playbook Goals, Equity Playbook Implementation, Impressions of e2L Coaching & materials, and Recommendations. The full list of interview prompts is shown in Appendix 3.



Interviewee's Perceptions of Equity Playbook Goals

In general, definitions of the Equity Playbook Initiative's goals aligned with the previously defined goals of the Equity Playbook, including DEIB and the "five pillars" model. Multiple interviewees noted the holistic approach of the Equity Playbook Initiative and indicated that the Equity Playbook went beyond previous DEIB initiatives. As one interviewee noted, *"Diversity means how we allow every child to get everything that they need in order to be a successful adult."*

Interviewee Perceptions of Equity Playbook Implementation

The interviewees' overall impressions regarding the rollout and implementation of the Equity Playbook were largely positive. Most felt that buy-in amongst participating districts was strong. However, multiple interviewees (unprompted) mentioned the political resistance of Equity Playbook in their district as "talking points" from other venues were brought into Equity Playbook meetings.

The interviewees' impressions of the Equity Playbook implementation and efficacy were generally very positive. The support from the e2L workshops and coaching sessions was repeatedly praised, although several respondents stated that the summer launch felt a bit rushed at the outset, partly due to the fact that it was scheduled for immediately after the educators' return to work for the new school year, with only a few days of notice. However, once the workshops began in earnest, interviewees indicated their appreciation of both the summer sessions that kickstarted the Equity Playbook effort and the one-on-one follow-up support from e2L.

As shown in the logic model of the Equity Playbook (Figure 4), most interviewees were already familiar with the elements of the model and believed that the short-term goals were either "accomplished" or "in progress." While the long-term goals remained to be seen due to their short implementation history, interviewees noted that they believed the goals were attainable with the progress they had seen over the past year. The main concern from interviewees at the school level was that educators outside of the administration might not be able to influence the "Distribution of Funding and Resources" pillar directly and that this was a goal best suited to state, district, and school administrators. This sentiment aligns with the "Coaching Competencies and Equity Pillars" annex in the Equity Playbook - Teachers were not expected to develop financial-related competencies.

Multiple interviewees highlighted that despite the occasional resistance encountered in committee meetings, stakeholders ultimately came to see the value of the Equity Pillars after implementation was on track. Staff's "sense of belonging" was mentioned across several interviews as a key area of improvement over the course of the school year.



Interviewee Impressions of e2L Coaching & Materials

Positive Feedback

One respondent noted that these coaching sessions and workshops provided them with “thought partners” to ask uncomfortable questions and discuss difficult topics. The impression of e2L amongst interviewees was overwhelmingly positive. This was reflected also by the fact that some of the interviewees recalled specific coaches and staffers who had provided support to them during the school year. Respondents felt that support provided by the coaches is genuine, *“this didn’t feel like a flippant, ‘Let’s just get this done’ kind of deal. Rather, their interest in the successful implementation of the Equity Playbook was genuine.”*

Part of the initiative’s implementation included selecting district and school-level “starting goals” based on the equity pillars. The most popular equity pillars selected for starting goals were “Culture & Climate” and “Highly Effective Staff and High-Quality Instructional Resources.” Interviewees indicated that these were the most approachable and proximate goals for them to target in their first year.

One school-level staff member reflected on the effect of the equity playbook on Culture & Climate & Student Achievement in their school:

“Students [were] afraid to be wrong and get a wrong answer...There’s a lot more students raising their hands, more students being willing to talk about things, even if they’re not sure if they’re right or wrong.”

Respondents appreciated that coaches were available to support at any time, genuinely cared about the implementation process, and were immensely knowledgeable about DEIB work. Moreover, the continuous support, as opposed to a “sit and get” professional development, was hugely appreciated. One school-level staff member noted:

“The coaches were fabulous, very personable and kind, you know...I have a daughter...she’s a first-year kindergarten teacher. I told her about the relationship that I’ve built with [my coach]...she said, Mom, I need that. Why don’t I have that!?”

Although explicit discussions of the eGrove platform were rare in the interviews, the comments were all positive, indicating that the platform was very user-friendly.

Areas for Improvement

Regarding drawbacks and areas for improvement, multiple interviewees discussed their concerns about the timing of the intervention. The interviewees indicated that the implementation seemed rushed and that the district staff would have benefitted from additional time to internalize the materials before enacting them. Another interviewee felt



that the rubrics were unnecessarily challenging and repetitive at times, but this perception was not shared by other interviewees.

Another common statement made by several interviewees was that due in part to the program's name, they expected to receive a binder or some accompanying print materials for their reference, as this practice was typical with other district training. This could be solved by providing physical materials to the participants in the upcoming summer workshops.

Interviewee Recommendations

Interviewees highly emphasized the value of e2L online materials and the desire for timely delivery of materials and training prior to the beginning of the school year. Participants suggested that timely delivery would alleviate concerns about feeling rushed or not having enough time to review the materials and that printed materials can be provided to workshop participants for reference.

Regarding the implementation, one respondent noted that taking a district-wide approach to the Five Pillars, where all the schools picked a singular focus as a group rather than each campus on their most pressing issue, wasn't the best approach - the respondent suggested that principals and other school leaders should set the priorities. Another commented on the desire to sit in on coaching sessions to hear from teachers how the Equity Playbook was implemented in their classroom and the customizations they had to make.

Lastly, there was a recommendation to provide greater clarity on the program and its expectations at the outset. One participant noted that they were not aware e2L offered so much coaching and trained attendees to coach others at their campuses, and they would have approached the summer workshops differently had they known.

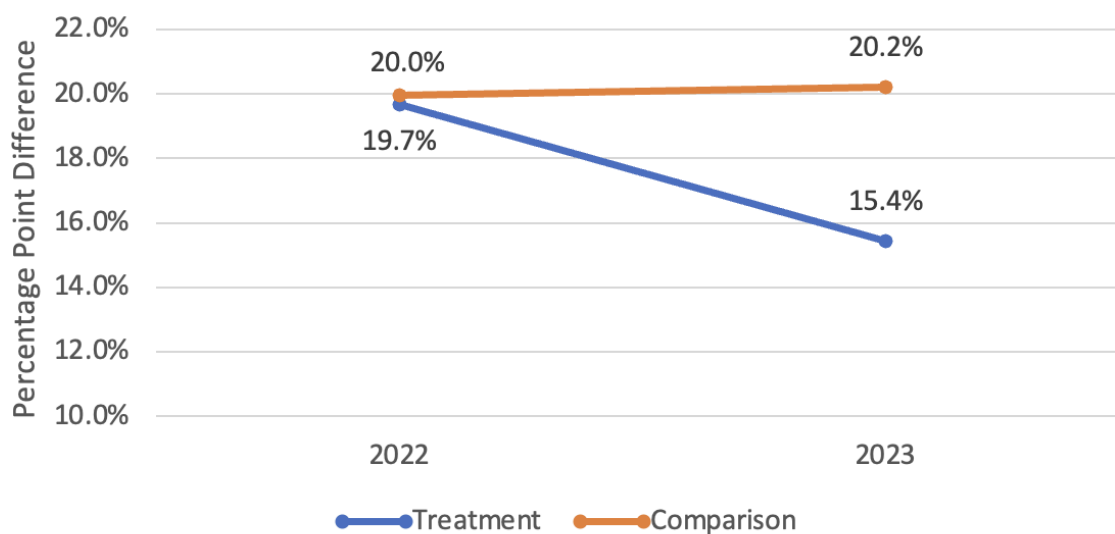


Supplemental Descriptive Analyses:

Student Achievement: District Level Reading and Math Subgroup: Difference in grade level proficiency across racial/ethnic groups

Using NCES data from Zelma, we calculated the difference in percentage of students who were proficient in mathematics and ELA across various racial/ethnic backgrounds in districts that were a part of Equity Playbook versus students in non-participating districts. We focused our comparisons on Black learners vs. White learners, and Hispanic learners vs. White learners. The findings are as follow:

Figure 15. Gap between percentage of White and African American Students Proficient in ELA



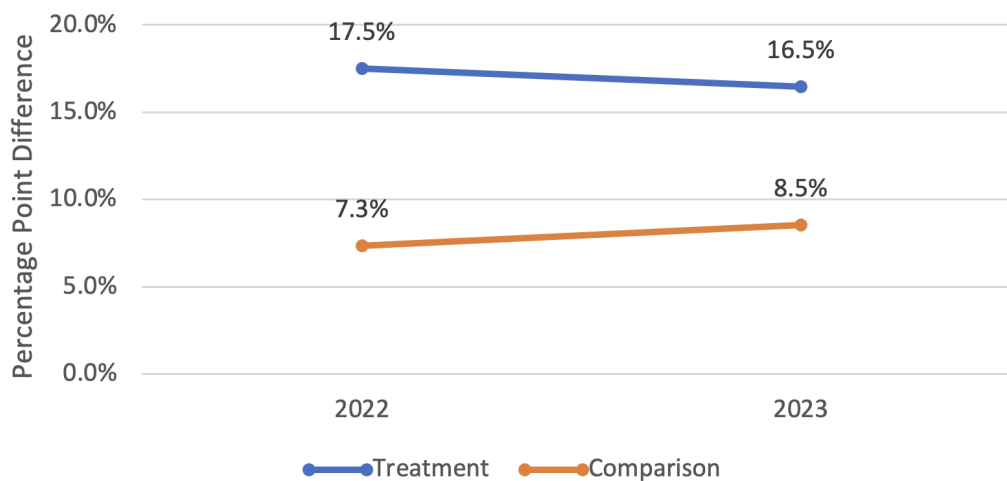
Note:

Zelma Education (Version 1.0). 2023. "ELA Proficiency Rates by Racial Group in Kentucky Districts for the 2022 School Year." Accessed at <https://www.zelma.ai/q/G8BebqS4Ut> on January 6, 2024 // Zelma Education (Version 1.0). 2023. "ELA Proficiency Rates by Racial Group in Kentucky Districts for the 2023 School Year." Accessed at <https://www.zelma.ai/q/9Tds6dJEYx> on January 6, 2024.

While the gap between percentage of Black students' and White students' proficient in ELA increased from 2022 to 2023 (N = 32), the gap decreased from 19.7 percentage points in 2022 to 15.4 percentage points in 2023 (N = 12).



Figure 16. Gap between percentage of White and Hispanic/Latinx Students Proficient in ELA



Note: Zelma Education (Version 1.0). 2023. "ELA Proficiency Rates by Racial Group in Kentucky Districts for the 2022 School Year." Accessed at <https://www.zelma.ai/q/G8BebqS4Ut> on January 6, 2024 // Zelma Education (Version 1.0). 2023. "ELA Proficiency Rates by Racial Group in Kentucky Districts for the 2023 School Year." Accessed at <https://www.zelma.ai/q/9Tds6dJEYx> on January 6, 2024.

A similar trend can be observed for Hispanic populations in Equity Playbook districts, such that districts that did not participate in the Equity Playbook initiative saw an increase in the gap between the percentage of Hispanic and White students who are proficient in ELA from 2022 to 2023 (N = 64). In contrast, Equity Playbook districts saw a decrease in the ELA achievement gap, from 17.5 percentage point in 2022 to 16.5 percentage point in 2023 (N = 14).

Limitations

The Comparison Group had a notably higher percentage of White students, (75%) compared with the Equity Playbook Group (67%). One possibility for this phenomenon is that districts with higher percentages of ethnic minority students were more motivated to become early adopters of the Equity Playbook initiative, due to its goals in serving underrepresented populations. Additionally, due to the school and district level unit of analysis of the data provided by the Kentucky School Report Card, statistical power was insufficient to conduct inferential analyses to determine statistical significance. Lastly, schools and districts were averaged and not weighted by the population of each school or district.

The Equity Playbook Initiative's goals are ambitious and multifaceted. Cultural shift in schools and districts can be a long process. As such, additional years of program implementation and evaluation would be required to determine the long-term result of the Equity Playbook Initiative.



Conclusion & Next Steps

The goal of this study was to review the implementation and impact of the first year of the Equity Playbook initiative carried out by the Kentucky Department of Education's DEIB Team and engage2Learn in its first year (2022-2023). A variety of State, District, and School-level educators and staff who were interviewed across the state of Kentucky indicated that the Equity Playbook Initiative was associated with positive effects, especially in schools and districts where it was implemented with fidelity. State, district and local school representatives also indicated that the Equity Playbook Initiative had the potential to demonstrate greater effects in future years, especially if the program is adopted by more districts and schools across Kentucky. The same interviewees indicated that engage2Learn effectively promoted growth by supporting educators, school leaders, and district leaders across the state.

A preliminary review of quantitative evidence showed some promising results, in which participating schools and districts improved in a variety of indicators of student academic achievement and school climate. Of particular interest was a series of findings indicating reductions in achievement gap among Equity Playbook-participating schools. However, both these analyses and their findings were limited by their unit of analysis (i.e., school and district averages). Future analyses should take place within participating districts, which will provide a more detailed perspective on the unique effects of the Equity Playbook and e2L coaching within schools to determine which specific intervention approaches had the greatest impact on Equity Playbook goals. In addition, more nuanced data with regard to teacher retention will become available over the coming year, providing additional indicators of the Equity Playbook's impact on participating schools and districts in Kentucky.



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Appendices

Appendix 1. Post-PSM School-Matched Test for Equivalence and Group Statistics

All Schools Combined Post_PSM

| | Comparison Group Mean | Equity Playbook Group Mean | Comparison Group SD | Equivalent? |
|-----------------------------------|------------------------------|-----------------------------------|----------------------------|--------------------|
| Science On Grade Level | .16 | .16 | .15 | Yes (.01 SD) |
| Math On Grade Level | .36 | .37 | .12 | Yes (.08 SD) |
| Economically Disadvantaged | .62 | .63 | .14 | Yes (.09 SD) |
| White Race Ethnicity | .75 | .67 | .15 | No (.53 SD) |



Appendix 2: Advanced Coursework Enrollment and Completion

The definition and calculation of variables were listed below:

- **advanced_enrollment_percent:** Calculates the total number of students (in a demographic group) who were enrolled in at least 1 advanced courses divided by the total number of students in that demographic group in grade 10, 11, and 12. As it is highly uncommon for schools to offer APs in 9th grade, the total number of students in grade 10, 11, and 12 is used as the basis of calculating advanced coursework related variables.
- **advanced_completion_rate:** Calculates the total number of students who have completed the course (in a demographic group) divided by the total number of students who were enrolled in that demographic group. This rate highlights the attrition from enrollment to completion.
- **ap/ advanced:** The prefix in the variable shows the advanced coursework that is measured. AP measures only advanced placements, while advanced measures all advanced courseworks, which includes AP, DC (Dual Credit), and IB (International Baccalaureate)

Analysis on the Enrollment in Advance Courses

| Subgroup | Treatment | | | Comparison | | |
|-------------------------|-----------|--|-------|------------|--|-------|
| | N | Increase in enrollment (percentage points) | SD | N | Increase in enrollment (percentage points) | SD |
| All students | 14 | +1% | 0.046 | 77 | +0.2% | 0.08 |
| Black/ African American | 7 | +1.9% | 0.049 | 29 | +1.1% | 0.12 |
| Non-white | 13 | -2.7% | 0.11 | 77 | +1.3% | 0.088 |

The treatment group has a higher increase of enrollment in both the all students subgroup and the Black/ African American subgroup compared to the comparison group, but has a decrease in enrollment in the non-White subgroup.



Analysis on the Rate of Completion after Enrollment

| Subgroup | Treatment | | | Comparison | | |
|-------------------------------|-----------|--|-------|------------|--|-------|
| | N | Increase in completion (percentage points) | SD | N | Increase in completion (percentage points) | SD |
| All students | 15 | +1.4% | 0.072 | 92 | +1.2% | 0.084 |
| Black/ African American | 10 | +4.4% | 0.14 | 54 | +2.4% | 0.15 |
| Non-white | 15 | +3.8% | 0.11 | 92 | +1.5% | 0.12 |

The completion of advanced courses of the treatment group has improved across board for different demographics groups from 2022 to 2023. The treatment group also observed a larger increase when compared to the comparison group.



Appendix 3: Qualitative Interview Prompts

1. First, what is your current role in your school/district?
2. How long have you been an educator overall, and in your District in particular? Did you have any previous roles there, and for how long?
3. What would you say are the *goals* of the equity playbook? What is it all about?
4. Our understanding is that the Equity Playbook began with a series of summer workshops. Were you invited to the workshops, and if so, did you attend?

[If so]...How did they go? What stood out most about the sessions? Did you have enough time to absorb the material? Is there anything you would change about the workshops?

[If not]...when were you first introduced to the Equity Playbook? How did that go?

5. Did you feel like you received enough information about expectations and goals prior to the beginning of the school year?
6. Once the school year began, how did the rollout of the Equity Playbook go in your school? Were there any challenges?
7. What was your interaction with the engage2Learn coaches? Were they helpful? *[If so]*, why? *[If not]* why not? Is there any additional support or resources that you'd find helpful?

[Interviewer shares screen, displays Logic Model]

8. Are you familiar with the goals of the Equity Playbook shown here? Would you say that the implementation of it aligned with these goals? *[If not familiar]* Does anything surprise you about this model, based on your experience with the program?

What would you say are the most pressing short-term goals for the Equity Playbook? What changes do you think need to be made in order for these goals to be attained? What about the long term goals?

9. Did you notice any positive impact of the Equity Playbook program in your school? *[If so]*, Can you share some examples?
10. Do you feel like your campus / teammates generally “bought-in” to the program? Why or why not?



11. Did your school select an equity pillar, or any other area of focus within the Equity Playbook for the school year?

[If so]... Were you involved in the selection process? In what way? Can you describe the selection process? How involved were teachers in selecting the area of focus? Is this the best focus for your classroom? If not, which area of focus would have been a better choice?

12. Have you encountered anyone who disagreed with the goals of the Equity Playbook? If so, what did they say?

13. Are there any pillars or goals that are most important to you personally? [If so] Why do you feel that way?

14. One of the Equity Playbook goals is “Sense of Belonging,” defined as “students and staff feeling cared about, accepted, respected, and valued by others on campus.” Would you say that Sense of Belonging has changed at all at your campus since the implementation of the Equity Playbook? Why?

15. Do you believe the Equity Playbook meaningfully impacted student-to-student relationships? [If so], what examples have you seen?

16. Have you incorporated principles from the Equity Playbook into your interactions with students or their families? If so, how?

17. Do you have anything else you’d like to share about your experience with the Equity Playbook?



Appendix 4. Equity Playbook Participating Districts

- ❖ Berea Independent
- ❖ Boone County
- ❖ Bowling Green Independent
- ❖ Butler County
- ❖ Daviess County
- ❖ Floyd County
- ❖ Fulton County
- ❖ Fulton Independent
- ❖ Jefferson County
- ❖ Kenton County
- ❖ Madison County
- ❖ Mayfield Independent
- ❖ Mercer County
- ❖ Rowan County
- ❖ Scott County
- ❖ Taylor County
- ❖ Washington County
- ❖ Woodford County



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