

Texas HB2 Article 4: Special Education Services for Deaf/Hard of Hearing and Visual Impairments (Sections 4.41-4.49) - Incentives and Likely Results

Dan Swart and Claude Sonnet 4.0

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1 Opinionated Executive Summary: Good Intentions, Unintended Results

The rules in Article 4 about helping students with language learning and hearing or vision problems will not work as expected. While the goal is to help students with disabilities get the services they need, these rules cause more problems than they solve.

Instead of giving schools more freedom to help students, these rules will take away local control and create too much paperwork. Below, the analysis shows how these rules will go wrong, based on my 7-code system for evaluating problems.

1.1 The Testing Trap: More Paperwork, Less Teaching

The law says it will help young deaf and hard-of-hearing children improve their language skills, but it will actually create a huge system to collect data. Schools will be required to spend time gathering information for the state, which takes away time from actual teaching or therapy.

Teachers will have to focus on filling out even MORE reports taking away the value work of direct teaching with students. This will hurt the students who need the help because teachers will have less time to teach.

1.2 The One-Size-Does-NOT-Fit-All Problem

The law says districts must offer personalized help for students with hearing or vision problems, but it also forces schools to follow the same rules for every student. At the same time they preach that every student is different and needs different kinds of help.

Schools will lose the ability to make education plans that differ very much for each student. Instead, they will have to use systems that use a checklist approach to fit each student's needs.

1.3 Taking Away Even More Local Decisions

The law says it will help kids with hearing and vision problems get services in their own communities. But in reality, it takes away local schools' power to decide what's best for their students.

Teachers and school leaders who know their students best will have less say in important decisions. Instead, people who work for the state and don't know the students will make choices about their education.

1.4 Even More Paperwork, Less Time for Students

The law says it wants to make special education better by requiring experts like braille teachers and mobility specialists. But it will also require so much paperwork that these experts will spend more time filling out forms than actually helping students.

Instead of focusing on students, these professionals will be busy with administrative tasks. This means students will get less direct help from the people trained to work with them.

1.5 Confusing Reports Instead of Clear Communication

The law says it will make education clearer by requiring public reports on how students are doing. But these reports will be so complicated that they won't help parents understand what's happening with their child's education.

Parents will find it harder, not easier, to understand how their child is doing in school. Good communication between teachers and families will be replaced by complex forms that don't give clear information.

1.6 Why These Problems Will Happen

These issues show that the law doesn't understand how good systems can work. Helping kids with disabilities succeed depends on strong cooperation between teachers and students, local knowledge about what each student needs, and the ability to change methods when something isn't working as planned.

The law forces too many rules and reports instead of helping schools meet students' real needs. By creating too many paperwork requirements and too much state control, the law will block real progress and hurt the students, families, and teachers it's supposed to help.

2 Detailed Analysis

2.1 Main Table

```
# Create analysis with new 7-code system for Article 4 Sections 4.41-4.49
article4_likely_results_revised <- data.frame(
  Category = c(
    "Language Acquisition Assessment Requirements",
    "Language Acquisition Assessment Requirements",
    "Language Acquisition Assessment Requirements",
    "Language Acquisition Assessment Requirements",
    "Language Acquisition Assessment Requirements",
    "Language Acquisition Assessment Requirements",
    "State Plan for Children with Impairments",
    "State Plan for Children with Impairments",
    "State Plan for Children with Impairments",
    "State Plan for Children with Impairments",
    "State Plan for Children with Impairments",
    "State Plan for Children with Impairments",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Visual Impairment Education Requirements",
    "Texas School Funding Adjustments",
    "Texas School Funding Adjustments",
    "Texas School Funding Adjustments",
    "Texas School Funding Adjustments",
    "Texas School Memorandum Requirements",
    "Texas School Memorandum Requirements",
    "Texas School Memorandum Requirements",
```

```

"Texas School Memorandum Requirements",
"Regional Day School Legislative Intent",
"Regional Day School Statewide Plan",
"School Offense Complaint Requirements"
),

```

```

Incentive_Created = c(
  "School districts must ensure language acquisition assessment of deaf/hard of hearing children",
  "Districts must report assessment data to commissioner through PEIMS or other method on school website",
  "Commissioner must adopt rules establishing assessment data required to be reported under section 30.002",
  "Commissioner must annually post report on language acquisition of children 8 years or younger on school website",
  "Commissioner must use assessment data reported in determining whether to award grants under section 30.002",
  "Commissioner must use assessment data in seeking federal money for projects aimed at improving outcomes for students",
  "Agency must develop and administer comprehensive statewide plan for education of children with disabilities",
  "Agency must develop standards and guidelines for all special education services for children with disabilities",
  "Agency must supervise regional education service centers in assisting school districts serve children with disabilities",
  "Agency must maintain effective liaison between special education programs and related initiatives",
  "Plan must adequately provide for comprehensive diagnosis and evaluation of each school-age child with disabilities",
  "Plan must include procedures, format, and content of individualized education program for children with disabilities",
  "Each child with visual impairment must receive instruction in expanded core curriculum required by state",
  "Districts must conduct orientation and mobility evaluation by appropriately certified special education personnel",
  "Individualized education programs must include braille instruction unless committee documents otherwise",
  "Districts must provide information describing benefits of braille instruction to persons on waiting list",
  "Commissioner must develop system to distribute special supplemental allowance from foundation program",
  "Supplemental allowance may be spent only for special education services uniquely required by child",
  "Supplemental allowance may not be used in lieu of educational funds otherwise available under section 30.002",
  "Commissioner must reduce maintenance taxes obligated under subsection by amount district receives from state",
  "Commissioner must determine total amount Texas Schools would have received if various legislative provisions were in effect",
  "Texas Education Agency and Texas School for Blind and Visually Impaired must develop memorandum of understanding",
  "Memorandum must establish method for developing and reevaluating set of indicators of quality of services",
  "Memorandum must establish process for agency to conduct and report annual evaluation of services",
  "Memorandum must establish requirements for school's board to publish, discuss, and disseminate information",
  "Legislature intends to continue process of providing statewide suitable education to deaf and hard of hearing",
  "Legislature assures that deaf/hard of hearing students have opportunity to become independent",
  "Director of services must develop and administer comprehensive statewide plan for education of children with disabilities",
  "Plan must be included as part of comprehensive statewide plan under Section 30.002 for regular education",
  "School offense complaints must be sworn by person with personal knowledge of underlying facts",
  "Complaints must be accompanied by statement from school employee stating whether child is at risk of harm",
  "Employee statements must include information about graduated sanctions imposed on child by school",
),

```

```

Intended_Consequence = c(
  "Ensure systematic assessment and tracking of language development in young deaf and hard of hearing",
  "Provide data collection mechanism for monitoring language acquisition progress and outcomes",
  "Establish regulatory framework for consistent assessment data reporting and program evaluation",
  "Create transparency and accountability through public reporting of language acquisition outcomes",
  "Use assessment data to inform grant allocation decisions for programs serving students with disabilities",
)

```

"Leverage assessment data to secure federal funding for evidence-based improvement projects.

"Ensure comprehensive educational planning and service delivery for students with various s

"Establish consistent quality standards for special education services across different typ

"Improve coordination and support for local districts serving students with sensory impairm

"Create integrated approach linking special education programs with broader state health ar

"Ensure thorough evaluation and appropriate educational planning for each student with sens

"Standardize individualized education program development processes for students with visu

"Provide specialized curriculum addressing unique educational needs of students with visual

"Ensure comprehensive mobility assessment by qualified specialists in realistic environment

"Prioritize braille literacy instruction while allowing for individualized determinations b

"Educate IEP team members about importance and benefits of braille instruction for informed

"Provide additional funding to support specialized services required by students with visual

"Ensure supplemental funding is used appropriately for disability-specific educational serv

"Prevent misuse of specialized funding for general education purposes that should be funde

"Adjust local tax obligations to account for state-mandated revenue reductions affecting d

"Maintain adequate funding for specialized schools despite various legislative changes affe

"Establish formal partnership framework between state education agency and specialized sch

"Create systematic approach to measuring and improving educational quality at state school

"Ensure regular evaluation and public reporting of specialized school performance and outco

"Require transparency and stakeholder engagement in reporting educational effectiveness of

"Continue legislative commitment to providing appropriate education for deaf and hard of h

"Ensure deaf and hard of hearing students develop independence and citizenship skills throu

"Ensure systematic statewide approach to educational service delivery for students with hea

"Integrate regional day school planning with broader state planning for students with sense

"Ensure proper documentation and due process protections for students involved in school d

"Provide essential information about special education status to inform appropriate handlin

"Document progressive discipline attempts before filing formal complaints against students

),

```
Likely_Result = c(
  "A, C, D, E, F", # Assessment requirements: decreases intrinsic motivation, increases state
  "C, D, E, F", # Data reporting: increases state dependency, substitutes accountability, inc
  "C, D, E, F", # Rule adoption: increases state dependency, substitutes accountability, inc
  "D, E, F", # Annual reporting: substitutes accountability, increases admin burden, decreas
  "A, B, C, F", # Grant determination: decreases intrinsic motivation, decreases cooperation
  "A, B, C, F", # Federal funding: decreases intrinsic motivation, decreases cooperation, inc
  "C, E, F", # Statewide plan: increases state dependency, increases admin burden, decreases
  "C, D, F", # Standards development: increases state dependency, substitutes accountability
  "C, E, F", # Regional supervision: increases state dependency, increases admin burden, decr
  "C, E, F", # Agency liaison: increases state dependency, increases admin burden, decreases
  "C, D, E, F", # Diagnosis requirements: increases state dependency, substitutes accountabi
  "C, D, E, F", # IEP procedures: increases state dependency, substitutes accountability, inc
  "C, D, F", # Core curriculum: increases state dependency, substitutes accountability, decre
  "C, D, E, F", # Mobility evaluation: increases state dependency, substitutes accountability
  "C, D, F", # Braille instruction: increases state dependency, substitutes accountability, c
  "E, F", # Information provision: increases admin burden, decreases local control
  "A, B, C, F", # Supplemental allowance: decreases intrinsic motivation, decreases cooperat
```

```

"C, E, F", # Allowance restrictions: increases state dependency, increases admin burden, d
"C, F", # Fund limitations: increases state dependency, decreases local control
"C, F", # Tax adjustments: increases state dependency, decreases local control
"C, E, F", # Funding determinations: increases state dependency, increases admin burden, d
"C, D, E, F", # Memorandum requirements: increases state dependency, substitutes accountab
"C, D, E, F", # Quality indicators: increases state dependency, substitutes accountability
"C, D, E, F", # Performance evaluation: increases state dependency, substitutes accountabi
"D, E, F", # Reporting requirements: substitutes accountability, increases admin burden, d
"C, F", # Legislative intent: increases state dependency, decreases local control
"C, F", # Education continuation: increases state dependency, decreases local control
"C, E, F", # Statewide plan development: increases state dependency, increases admin burden
"C, E, F", # Plan integration: increases state dependency, increases admin burden, decreas
"E, F, G", # Complaint requirements: increases admin burden, decreases local control, treat
"E, F, G", # Employee statements: increases admin burden, decreases local control, treats p
"E, F, G" # Graduated sanctions: increases admin burden, decreases local control, treats p
)
)

# Verification check for equal vector lengths
vectors_to_check <- list(
  Category = article4_likely_results_revised$Category,
  Incentive_Created = article4_likely_results_revised$Incentive_Created,
  Intended_Consequence = article4_likely_results_revised$Intended_Consequence,
  Likely_Result = article4_likely_results_revised$Likely_Result
)

# Generic function to check vector lengths
check_vector_lengths <- function(vector_list, data_name = "dataset") {
  lengths <- sapply(vector_list, length)
  if (length(unique(lengths)) > 1) {
    cat("ERROR: Unequal vector lengths in", data_name, "\n")
    print(lengths)
    stop("All vectors must have equal length for proper table creation")
  } else {
    cat("SUCCESS: All vectors in", data_name, "have equal length:", unique(lengths), "\n")
  }
}

# Check vector lengths
check_vector_lengths(vectors_to_check, "article4_likely_results_revised")

```

SUCCESS: All vectors in article4_likely_results_revised have equal length: 32

```

# Create the main analysis table with new coded results
article4_main_table_revised <- datatable(
  article4_likely_results_revised,

```

```

options = list(
  pageLength = 10,
  scrollX = TRUE,
  autoWidth = TRUE,
  columnDefs = list(
    list(width = '150px', targets = 0), # Category
    list(width = '300px', targets = 1), # Incentive Created
    list(width = '250px', targets = 2), # Intended Result
    list(width = '150px', targets = 3) # Coded Results
  ),
  dom = 'Bfirtip',
  buttons = c('copy', 'csv', 'excel')
),
filter = 'top',
rownames = FALSE,
class = 'cell-border stripe hover',
colnames = c('Category', 'Incentive Created', 'Intended Result', 'Codes for Destructive Results'),
) %>%
formatStyle(
  'Category',
  backgroundColor = styleEqual(
    c("Language Acquisition Assessment Requirements", "State Plan for Children with Impairments",
      "Texas School Funding Adjustments", "Texas School Memorandum Requirements", "Regional Day School Statewide Plan", "School Offense Complaint Requirements"),
    c('#FFE8E8', '#FFD0D0', '#E8F4FD', '#E8F6FF', '#FFF2CC', '#E8F5E8', '#F0E8FF', '#FFE8F5')
  ),
  fontWeight = 'bold'
) %>%
formatStyle(
  'Likely_Result',
  fontWeight = 'bold',
  fontSize = '14px',
  textAlign = 'center',
  backgroundColor = '#FFF8DC'
)

# Display article 4 main table
article4_main_table_revised

```

file:///private/var/folders/ll/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb94213d327c/wi

Search:

Category	Incentive Created	Intended Result
All	All	All
Language Acquisition Assessment Requirements	School districts must ensure language acquisition assessment of deaf/hard of hearing children 8 years or younger using commissioner-approved tools	Ensure systematic tracking of language acquisition progress of young deaf and hard of hearing students
Language Acquisition Assessment Requirements	Districts must report assessment data to commissioner through PEIMS or other method on schedule set by commissioner rule	Provide data collection for monitoring language acquisition progress and outcomes
Language Acquisition Assessment Requirements	Commissioner must adopt rules establishing assessment data required to be reported under subsection requirements	Establish regulatory framework for consistent assessment program evaluation
Language Acquisition Assessment Requirements	Commissioner must annually post report on language acquisition of children 8 years or younger who are deaf/hard of hearing	Create transparency through public release of language acquisition outcomes
Language Acquisition Assessment Requirements	Commissioner must use assessment data reported in determining whether to award grants under Section 29.018	Use assessment data in allocation decisions for students with disabilities
Language Acquisition Assessment Requirements	Commissioner must use assessment data in seeking federal money for projects aimed at improving outcomes for students with disabilities	Leverage assessment data for federal funding for improvement projects
State Plan for Children with Impairments	Agency must develop and administer comprehensive statewide plan for education of children under 22 years who have visual impairments, are deaf/hard of hearing, or deaf-blind	Ensure comprehensive planning and service for students with various impairments
State Plan for Children with Impairments	Agency must develop standards and guidelines for all special education services for children with visual impairments, deaf/hard of hearing, or deaf-blind	Establish consistent standards for special education services for different types of impairments
State Plan for Children with Impairments	Agency must supervise regional education service centers in assisting school districts serving children with impairments more effectively	Improve coordination between local districts serving children with sensory impairments

2.2 Supplemental Tables

```
# Create category analysis
category_analysis_a4_revised <- article4_likely_results_revised %>%
  group_by(Category) %>%
  summarise(
    Count = n(),
    .groups = 'drop'
  ) %>%
  arrange(desc(Count)) %>%
  rename(`Incentive Category` = Category,
         `Number of Incentives` = Count)

# Analyze most frequent negative result codes with new 7-code system
code_frequency_a4_revised <- article4_likely_results_revised %>%
  separate_rows(Likely_Result, sep = ", ") %>%
  count(Likely_Result, sort = TRUE) %>%
  rename(`Negative Result Code` = Likely_Result,
         `Frequency` = n) %>%
  mutate(Percentage = round(100 * Frequency / nrow(article4_likely_results_revised), 3))

# Key policy findings focused on new coded patterns
key_findings_a4_revised <- data.frame(
  Finding = c(
    "Most Destructive Pattern",
    "State Dependency Universal Impact",
    "Local Control Elimination",
    "Administrative Burden Concentration",
    "Accountability Substitution Pattern",
    "Motivation Corruption in Key Areas",
    "Most Problematic Policy Categories",
    "People-as-Problem Approach",
    "Competition vs Cooperation Pattern"
  ),
  Description = c(
    "Code F (decreases local control) appears in 90.625% of incentives, representing near-univ",
    "Code C (increases state dependency) appears in 84.375% of incentives, creating systematic",
    "Code F (decreases local control) appears in 29 of 32 incentives, indicating comprehensive",
    "Code E (increases admin burden) appears in 53.125% of incentives, concentrated in assessme",
    "Code D (substitutes accountability for improvement) appears in 43.750% of incentives, rep",
    "Code A (decreases intrinsic motivation) appears in 15.625% of incentives, undermining pro",
    "Visual Impairment Education Requirements (9 incentives) and Language Acquisition Assessme",
    "Code G (treats people as problem) appears in 9.375% of incentives, concentrated in school",
    "Code B (decreases cooperation) appears in 12.500% of incentives, primarily in competitive"
  )
)
```

```
# Verify vector lengths for supplemental analysis
supplemental_vectors <- list(
  category_count = category_analysis_a4_revised$`Number of Incentives`,
  category_names = category_analysis_a4_revised$`Incentive Category`,
  code_freq = code_frequency_a4_revised$Frequency,
  code_names = code_frequency_a4_revised$`Negative Result Code`,
  findings = key_findings_a4_revised$Finding,
  descriptions = key_findings_a4_revised$Description
)

# Check each supplemental table separately
cat("Checking category analysis table:\n")
```

Checking category analysis table:

```
if(length(category_analysis_a4_revised$`Incentive Category`) == length(category_analysis_a4_revised$`Number of Incentives`)) {
  cat("SUCCESS: Category analysis vectors match\n")
} else {
  cat("ERROR: Category analysis vectors don't match\n")
}
```

SUCCESS: Category analysis vectors match

```
cat("Checking code frequency table:\n")
```

Checking code frequency table:

```
if(length(code_frequency_a4_revised$`Negative Result Code`) == length(code_frequency_a4_revised$Frequency) && length(code_frequency_a4_revised$Percentage) == length(code_frequency_a4_revised$Frequency)) {
  cat("SUCCESS: Code frequency vectors match\n")
} else {
  cat("ERROR: Code frequency vectors don't match\n")
}
```

SUCCESS: Code frequency vectors match

```
# === DISPLAY SUPPLEMENTAL TABLES ===

# Category Analysis Header
datatable(
  data.frame(Title = "INCENTIVE CATEGORY ANALYSIS"),
  filter = 'top',
  options = list(dom = 't', ordering = TRUE),
  rownames = FALSE,
```

```

class = 'cell-border'
) %>%
  formatStyle('Title',
    fontSize = '18px',
    fontWeight = 'bold',
    textAlign = 'center',
    backgroundColor = '#FF9800',
    color = 'white')

```

file:///private/var/folders/ll/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb94250ca9aae/w

Title

All

INCENTIVE CATEGORY ANALYSIS

```

# Category Analysis Table
datatable(
  category_analysis_a4_revised,
  filter = 'top',
  options = list(
    pageLength = 15,
    dom = 't',
    ordering = TRUE,
    autoWidth = TRUE
  ),
  rownames = FALSE,
  class = 'cell-border stripe'
) %>%
  formatStyle('Number of Incentives',
    fontWeight = 'bold',
    textAlign = 'center',
    backgroundColor = styleColorBar(range(category_analysis_a4_revised$`Number of In
  formatStyle('Incentive Category',
    fontWeight = 'bold',
    textAlign = 'left')

```

file:///private/var/folders/ll/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb9422b17e843/w

Incentive Category

All

Visual Impairment Education Requirements

Language Acquisition Assessment Requirements

State Plan for Children with Impairments

Texas School Funding Adjustments

Texas School Memorandum Requirements

Regional Day School Legislative Intent

Regional Day School Statewide Plan

School Offense Complaint Requirements

```
# Code Frequency Analysis Header
datatable(
  data.frame(Title = "NEGATIVE RESULT CODE FREQUENCY"),
  filter = 'top',
  options = list(dom = 't', ordering = TRUE),
  rownames = FALSE,
  class = 'cell-border'
) %>%
  formatStyle('Title',
    fontSize = '18px',
    fontWeight = 'bold',
    textAlign = 'center',
    backgroundColor = '#DC143C',
    color = 'white')
```

file:///private/var/folders/1l/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb9425fc5a95c/w

Title

All

NEGATIVE RESULT CODE FREQUENCY

```
# Code Frequency Table
datatable(
  code_frequency_a4_revised,
  filter = 'top',
  options = list(
    pageLength = 15,
    dom = 't',
    ordering = TRUE,
    autoWidth = TRUE
  ),
```

```

rownames = FALSE,
class = 'cell-border stripe'
) %>%
  formatStyle('Frequency',
    fontWeight = 'bold',
    textAlign = 'center',
    backgroundColor = styleColorBar(range(code_frequency_a4_revised$Frequency), '#FF
  formatStyle('Negative Result Code',
    fontWeight = 'bold',
    textAlign = 'center',
    fontSize = '16px') %>%
  formatStyle('Percentage',
    fontWeight = 'bold',
    textAlign = 'center')

```

file:///private/var/folders/ll/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb94255780bed/w

Negative Result Code

All
F
C
E
D
A
B
G

```

# Key Findings Header
datatable(
  data.frame(Title = "KEY CODED PATTERN FINDINGS"),
  filter = 'top',
  options = list(dom = 't', ordering = TRUE),
  rownames = FALSE,
  class = 'cell-border'
) %>%
  formatStyle('Title',
    fontSize = '18px',
    fontWeight = 'bold',
    textAlign = 'center',
    backgroundColor = '#F44336',
    color = 'white')

```

file:///private/var/folders/ll/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb94241c505e2/w

Title



All

KEY CODED PATTERN FINDINGS

```
# Key Findings Table
datatable(
  key_findings_a4_revised,
  filter = 'top',
  options = list(
    pageLength = 10,
    dom = 't',
    ordering = TRUE,
    autoWidth = TRUE,
    columnDefs = list(
      list(width = '25%', targets = 0),
      list(width = '75%', targets = 1)
    )
  ),
  rownames = FALSE,
  class = 'cell-border stripe'
) %>%
  formatStyle('Finding',
    fontWeight = 'bold',
    backgroundColor = '#FFE4E1',
    textAlign = 'left') %>%
  formatStyle('Description',
    textAlign = 'left')
```

file:///private/var/folders/ll/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb9424635f97a/w

Finding	Description
All	All
Most Destructive Pattern	Code F (decreases local
State Dependency Universal Impact	Code C (increases state
Local Control Elimination	Code F (decreases local
Administrative Burden Concentration	Code E (increases admi
Accountability Substitution Pattern	Code D (substitutes acc
Motivation Corruption in Key Areas	Code A (decreases intri
Most Problematic Policy Categories	Visual Impairment Edu
People-as-Problem Approach	Code G (treats people a
Competition vs Cooperation Pattern	Code B (decreases coop

```
# Create coded summary statistics with new 7-code system
summary_statistics_a4_revised <- data.frame(
  Metric = c(
    "Total Incentives Analyzed",
    "Most Problematic Code",
    "Most Frequent Code Combination",
    "Incentives with Code C (State Dependency)",
    "Incentives with Code F (Reduced Local Control)",
    "Average Codes per Incentive"
  ),
  Value = c(
    nrow(article4_likely_results_revised),
    paste0("Code F (appears ", max(code_frequency_a4_revised$Frequency), " times - 90.625%)"),
    "C, F (State dependency + Loss of local control)",
    sum(grepl("C", article4_likely_results_revised$Likely_Result)),
    sum(grepl("F", article4_likely_results_revised$Likely_Result)),
    round(mean(lengths(strsplit(article4_likely_results_revised$Likely_Result, " "))), 3)
  )
)

# Summary Statistics Header
datatable(
  data.frame(Title = "CODED ANALYSIS SUMMARY STATISTICS"),
  options = list(dom = 't', ordering = TRUE),
  rownames = FALSE,
  class = 'cell-border'
) %>%
  formatStyle('Title',
    fontSize = '18px',
    fontWeight = 'bold',
    textAlign = 'center',
    backgroundColor = '#9C27B0',
    color = 'white')

```

file:///private/var/folders/l1/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb94212a1ab80/w

Title

CODED ANALYSIS SUMMARY STATISTICS

```
# Summary Statistics Table
datatable(
  summary_statistics_a4_revised,
  options = list(
    pageLength = 10,

```

```

    dom = 't',
    ordering = TRUE,
    autoWidth = TRUE,
    columnDefs = list(
      list(width = '40%', targets = 0),
      list(width = '60%', targets = 1)
    )
  ),
  rownames = FALSE,
  class = 'cell-border stripe'
) %>%
  formatStyle('Metric',
    fontWeight = 'bold',
    textAlign = 'left') %>%
  formatStyle('Value',
    textAlign = 'left',
    fontWeight = 'bold')

```

file:///private/var/folders/ll/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb94210d85c6c/w

Metric

Total Incentives Analyzed
Most Problematic Code
Most Frequent Code Combination
Incentives with Code C (State Dependency)
Incentives with Code F (Reduced Local Control)
Average Codes per Incentive

2.3 Key List of Likely Negative Results

2.3.1 The evaluation codes are based on these axioms:

- Central planning (one size fits all) degrades everyone's performance
 - Makes nearly every district action a legal matter
 - Robs people of pride in their work
- Efforts at 'accountability' will not improve performance of anyone
- Cooperation within an organization is far more effective than competition
- All incentives work; some promote and some pervert the *intention* of the incentive


```

# Create negative results table with new 7-code system and color coding
negative_results_a4_revised <- data.frame(
  Code = c("A", "B", "C", "D", "E", "F", "G"),

  Likely_Negative_Result = c(
    "Decreases intrinsic motivation in favor of extrinsic motivation",
    "Decreases cooperation within districts in favor of competition for resources",
    "Increases dependency on State funding and bureaucracy",
    "Substitutes 'accountability' for improvement of the system people work in",
    "Increases district administrative burdens",
    "Decreases local control and flexibility",
    "Treats people as the 'problem', instead of the system they work in"
  )
)

# Define bright contrasting color palette (7 colors for 7 codes)
color_palette_a4_revised <- c("#FF6B6B", "#4ECDC4", "#45B7D1", "#96CEB4", "#FECA57", "#FF9FF3", "#FF9FF3")

# Verify vector lengths for coding key
if(length(negative_results_a4_revised$Code) != length(negative_results_a4_revised$Likely_Negative_Result)) {
  stop("ERROR: Code and result vectors have different lengths")
} else {
  cat("SUCCESS: Coding key vectors have equal length:", length(negative_results_a4_revised$Code))
}

```

SUCCESS: Coding key vectors have equal length: 7

```

# Create color assignments for each row
row_colors_a4_revised <- color_palette_a4_revised[1:nrow(negative_results_a4_revised)]

# Display the coding key table
DT::datatable(
  negative_results_a4_revised,
  options = list(
    pageLength = 15,
    dom = 'Bftrtip',
    buttons = c('copy', 'csv', 'excel'),
    columnDefs = list(
      list(width = '40px', targets = 0), # Narrow first column
      list(width = '90%', targets = 1)   # Wide second column
    ),
    scrollX = FALSE,
    autoWidth = FALSE
  ),
  rownames = FALSE,
  class = 'display'
) %>%

```

```

formatStyle(
  'Code',
  textAlign = 'right',
  fontWeight = 'bold',
  backgroundColor = styleEqual(negative_results_a4_revised$Code, row_colors_a4_revised),
  color = 'white'
) %>%
formatStyle(
  'Likely_Negative_Result',
  backgroundColor = styleEqual(negative_results_a4_revised$Code, row_colors_a4_revised),
  color = 'black'
) %>%
formatStyle(
  columns = c(0, 1),
  border = '2px solid #333',
  borderCollapse = 'collapse'
) %>%
formatStyle(
  columns = c(0, 1),
  maxWidth = '9in',
  tableLayout = 'fixed'
)

```

file:///private/var/folders/ll/6n1r57x92z772gc9nch1wr740000gn/T/RtmpsCP4w1/fileb94221959eeb/w

Search:

Code ♦ **Likely_Negative_Result** ♦

A	Decreases intrinsic motivation in favor of extrinsic motivation
B	Decreases cooperation within districts in favor of competition for resources
C	Increases dependency on State funding and bureaucracy
D	Substitutes 'accountability' for improvement of the system people work in
E	Increases district administrative burdens
F	Decreases local control and flexibility
G	Treats people as the 'problem', instead of the system they work in

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