ACM Journal Structure Analysis and Optimal Article Outline

Executive Summary

Your accessibility framework comparison research is **well-suited for academic publication** with two primary venue options: **ACM Transactions on Accessible Computing (TACCESS)** as the optimal choice, and **ACM Journal on Responsible Computing (JRC)** as a strong alternative. Both venues align with your quantitative methodology and practical toolkit contributions.

Journal Analysis Results

ACM Journal on Responsible Computing (JRC) Assessment

Template Confirmation: JRC uses the **acmsmall** LaTeX template with single-column submission format and two-column publication format. The latest template version is acmart v2.14 (June 2025).

Journal Characteristics:

- **Recently launched** (first issue 2024) with 42 articles published
- **Research article length**: 5,000-8,000 words
- **Review timeline**: Approximately 2 months with double-blind review
- **Editorial focus**: Interdisciplinary research combining computing, ethics, and social responsibility
- **Strong alignment** with accessibility research through public interest technology focus

Alignment Strengths:

- **Public interest technology** framing fits mobile accessibility perfectly
- **Fairness and inclusion** themes align with accessibility research
- **Interdisciplinary approach** welcomes technical + ethical perspectives
- **Global representation** values diverse accessibility perspectives

Superior Alternative Identified: TACCESS

Recommendation: Consider **ACM Transactions on Accessible Computing (TACCESS)** as primary target venue.

Why TACCESS is optimal:

- **Perfect scope alignment** with accessibility computing research
- **Established accessibility community** and impact
- **Values quantitative methodologies** and framework comparisons
- **Welcomes practical implementations** like AccessibleHub
- **Flexible length** for comprehensive studies
- **Direct connection** to ASSETS conference community

Successful Publication Patterns

Analysis of exemplary ACM papers reveals successful accessibility framework research combines:

Mixed-Methods Excellence: Papers like "Towards an Inclusive Mobile Web: A Dataset and Framework for Focusability in UI Accessibility" (ACM Web Conference 2025) demonstrate success through combining quantitative metrics with user studies involving people with disabilities.

Practical Contributions: Research like "Latte: Use-Case and Assistive-Service Driven Automated Accessibility Testing Framework for Android" (CHI 2021) shows how providing working tools alongside research increases impact and adoption.

Technical Rigor: Studies such as "Developing Accessible Mobile Applications with Cross-Platform Development Frameworks" (ASSETS 2021) succeed through systematic API-level analysis and comprehensive framework comparison.

Optimal Article Structure

Target Specifications

- **Primary venue**: TACCESS (Transactions on Accessible Computing)
- **Alternative venue**: JRC (Journal on Responsible Computing)
- **Word count**: 6,000-8,000 words for comprehensive coverage
- **Template**: acmsmall format (single-column submission, two-column publication)

I. Title and Abstract (200 words)

Suggested Title: "Quantitative Accessibility Evaluation of Cross-Platform Mobile Frameworks: A Systematic Comparison with AccessibleHub Toolkit"

Abstract Structure:

- Problem statement emphasizing accessibility challenges in cross-platform development
- Novel methodology highlighting your six quantitative metrics (CAS, IMO, SRSS, WCR, DTE, CIF)
- Key findings featuring React Native's 45% reduction in implementation overhead and superior screen reader compatibility
- Practical contribution showcasing AccessibleHub as educational and research platform
- Implications providing evidence-based framework selection guidance

II. Introduction (800-1000 words)

Opening Framework: **Mobile accessibility as computing imperative** - establish the critical importance of accessible mobile applications for users with disabilities, connecting to broader themes of digital inclusion and equitable technology access.

Key Elements:

- **Accessibility imperative** in mobile development landscape
- **Cross-platform adoption challenges** for accessibility implementation
- **Gap in quantitative evaluation** methodologies for framework comparison
- **Research objectives** and novel contributions

- **Structure preview** and reader guidance

Venue-Specific Framing:

- **For TACCESS**: Focus on addressing accessibility barriers in cross-platform development
- **For JRC**: Position as responsible computing imperative serving public interest

III. Related Work (1000-1200 words)

Section Organization:

3.1 Mobile Accessibility Frameworks and Guidelines

- WCAG mobile applications and platform-specific implementations
- Native accessibility APIs (iOS UIKit, Android AccessibilityService)
- Existing evaluation methodologies and their limitations

3.2 Cross-Platform Development Accessibility

- React Native accessibility features and implementation approaches
- Flutter accessibility architecture and capabilities
- **Extend existing work** by Gaggi & Perinello and Budai on Flutter accessibility
- Current gaps in systematic comparison methodologies

3.3 Quantitative Evaluation Methodologies

- Accessibility metrics in academic literature
- Performance evaluation frameworks for mobile development
- **Gap identification** for systematic quantitative comparison

IV. Methodology (1200-1500 words)

Section Structure:

4.1 Novel Quantitative Metrics Framework

Present your six innovative metrics with detailed definitions:

- **Component Accessibility Score (CAS)**: Comprehensive scoring system for UI component accessibility
- **Implementation Overhead (IMO)**: Systematic measurement of development time and complexity costs
- **Screen Reader Support Score (SRSS)**: Evaluation framework for assistive technology compatibility
- **WCAG Compliance Ratio (WCR)**: Automated compliance assessment methodology
- **Development Time Estimate (DTE)**: Systematic timing and effort measurement
- **Complexity Impact Factor (CIF)**: Framework for measuring implementation complexity

4.2 Experimental Design and Validation

- **Framework selection rationale** for React Native vs Flutter comparison
- **Component selection criteria** ensuring comprehensive coverage
- **Evaluation environment** specification for reproducible results

- **Validation methodology** ensuring metric reliability and validity

4.3 AccessibleHub Implementation Architecture

- **React Native implementation** as research platform and educational tool
- **Educational features** including tutorials, examples, and testing capabilities
- **Data collection capabilities** for metrics gathering and analysis
- **Open-source contribution** strategy for community adoption

V. Results and Analysis (1500-1800 words)

Section Structure:

5.1 Quantitative Comparison Results

Present findings with compelling data visualization:

- **Implementation overhead analysis**: "React Native demonstrates 45% reduction in implementation overhead compared to Flutter"
- **Screen reader compatibility**: "Higher screen reader compatibility (4.2 vs 3.8 average score)"
- **Component-level breakdown**: Detailed analysis by UI component type and complexity
- **Performance implications**: Development time and complexity impact measurements

5.2 Framework-Specific Advantages and Trade-offs

- **React Native strengths**: Specific quantitative evidence for accessibility advantages
- **Flutter advantages**: "Flutter offers advantages for complex components" with supporting data
- **Use case recommendations**: Evidence-based guidance for different development scenarios
- **Performance vs accessibility trade-offs**: Systematic analysis of competing considerations

5.3 AccessibleHub Validation and Impact

- **Educational effectiveness**: User feedback and learning outcome metrics
- **Developer adoption**: Practical implementation success stories
- **Research platform utility**: Data collection capabilities and community contributions

VI. Discussion (1000-1200 words)

Section Structure:

6.1 Implications for Developers and Organizations

- **Framework selection guidance** based on quantitative evidence
- **Implementation strategies** for accessibility optimization
- **Cost-benefit analysis** for different development scenarios and organizational contexts

6.2 Methodology Contributions to Research Community

- **Metric validity and reliability** analysis with statistical validation
- **Reproducibility and generalizability** of evaluation framework
- **Future applications** of quantitative methodology to other framework comparisons

6.3 Limitations and Future Research Directions

- **Study limitations** including scope, platform versions, and component coverage
- **Metric refinement opportunities** based on initial validation results
- **Extended evaluation** directions for broader framework ecosystem

Venue-Specific Emphasis:

- **For JRC**: Emphasize **ethical implications** and **societal impact** of framework choices on accessibility
- **For TACCESS**: Focus on **accessibility community benefits** and **practical adoption** strategies

VII. Conclusion (400-600 words)

Key Elements:

- **Novel methodology summary** highlighting quantitative metrics contribution
- **Practical findings** with specific React Native vs Flutter results
- **AccessibleHub contribution** emphasizing educational and research value
- **Broader implications** for evidence-based development practices
- **Call to action** with adoption recommendations and future research directions

Strategic Publication Recommendations

Primary Submission Strategy

Option 1: TACCESS (Recommended)

- **Perfect alignment** with accessibility research focus
- **Established community** of accessibility researchers and practitioners
- **Values quantitative methodologies** and practical contributions
- **Submission approach**: Continuous submission with 3-6 month review cycle

Option 2: JRC (Strong Alternative)

- **Interdisciplinary opportunity** with ethical framing
- **Less competition** as newer journal
- **Strong ACM prestige** with open access transition
- **Submission approach**: Research article category, double-blind review

Success Factors for Both Venues

Essential Elements:

- **Include user validation** with people with disabilities
- **Provide reproducible methodology** with code and data availability
- **Emphasize practical impact** through AccessibleHub toolkit
- **Balance technical rigor** with accessibility community needs

For TACCESS Optimization:

- Emphasize **practical accessibility impact** for developers

- Highlight **community contributions** and open-source availability
- Position as **systematic evaluation advancement** for accessibility research
- Include **developer workflow integration** considerations

For JRC Optimization:

- Frame as **responsible computing imperative** with ethical implications
- Emphasize **public interest technology** aspects of accessibility
- Include **global accessibility perspectives** and inclusive design
- Highlight **societal impact** of framework selection decisions

Technical Requirements Summary

Template and Formatting:

- **LaTeX template**: acmsmall format for both venues
- **Submission format**: Single-column using `\documentclass[manuscript]{acmart}`
- **Final format**: Two-column publication format
- **Review process**: Double-blind for both venues

Timeline Recommendations:

1. **Immediate focus**: Target TACCESS for comprehensive study
2. **Alternative strategy**: Submit refined version to JRC if needed
3. **Conference presentation**: Consider ASSETS for community feedback and visibility

This structure transforms your thesis contributions into a compelling journal article that emphasizes the novel quantitative methodology, practical AccessibleHub toolkit, and actionable insights while meeting the specific requirements and preferences of top-tier accessibility venues. The research addresses a critical gap in systematic accessibility evaluation and provides both theoretical contributions and practical tools for the accessibility community.