Research Journal of Education, Teaching and Curriculum Studies
Vol. 4 No. 1 (2026): ISSN (Online): 2958-8626
DOI: https://doi.org/10.58721/rjetcs.v4i1.1737
Digital Media Fluency and Innovative Content Creation Among Mass Communication Students at Kabarak University, Nakuru, Kenya

Digital Media Fluency and Innovative Content Creation Among Mass Communication Students at Kabarak University, Nakuru, Kenya

Mercy Munene[1] & Amon Kipyegon Kirui[1,2]
[1]*Kabarak University, Kenya*
[2]*University of Venda, South Africa*

Article History
Received: 20.09.2025
Revised: 22.04.2026
Accepted: 24.04.2026
Published: 02.05.2026

Keywords
Content creation
Digital media
Mass communication
Self-efficacy

How to cite:
Munene, M., & Kirui, A. K. (2026). Digital Media Fluency and Innovative Content Creation Among Mass Communication Students at Kabarak University, Nakuru, Kenya. *Research Journal of Education, Teaching and Curriculum Studies*, 4(1), 137-152.

Abstract
As the global and Kenyan media industries rapidly transition to digital-first, multi-platform storytelling, Mass Communication students are increasingly required to possess advanced technical skills. However, a critical skills gap persists within Kenyan higher education: despite significant investments in digital laboratories, students at institutions like Kabarak University frequently exhibit high technical proficiency but paradoxically fail to translate these skills into innovative journalistic content, often defaulting to derivative projects to secure passing grades. This study fills this empirical gap by investigating the underlying psychological mechanisms. Nevertheless, the process of converting the simple software skill into real creative innovation is under-researched in the context of higher education in East Africa. This research is based on a theoretical synthesis of the Cognitive Load Theory of John Sweller and the Social Cognitive Theory of Albert Bandura and explores the psychological intervening variable between technical proficiency and creative performance. A structured instrument was used to gather primary data through the use of an exploratory, qualitative-dominant mixed-methods research design (concurrent triangulation) among undergraduate students of Mass Communication at Kabarak University, Kenya (N=30). The instrument combined quantitative Likert scales with qualitative open-ended questions to create a descriptive floor of cognitive load and the lived technical experiences of students, respectively. The combined results indicate that there is an Academic Risk Aversion Paradox in which the local infrastructural friction serves as an extreme extraneous cognitive burden that makes students give up creative aspiration and pursue mechanical recreation. Finally, this paper will claim that technical fluency is only one of the minimum qualifications; university programs need to actively offset infrastructural shortcomings to create the creative self-efficacy needed to drive the multi-skilled digital reporters that modern newsrooms demand. To dismantle this Academic Risk Aversion Paradox, the study concludes that institutional solutions

must extend beyond simple hardware acquisition. Specifically, based on the localized friction experienced by the cohort, media departments must fundamentally revise their practical grading rubrics. By explicitly rewarding creative risk-taking, experimental ambition, and iterative failure rather than demanding error-free mechanical replication, educators can artificially lower performance-related cognitive load and actively rebuild the creative self-efficacy required for genuine digital innovation.

Introduction

The modern media landscape demands a workforce that is inherently digitally native. With the world communication industry moving towards multimedia storytelling, the highly dynamic media ecosystem in Kenya (the heart of the Silicon Savannah). This tech scene reached a significant milestone in 2026 with over 300 active digital hubs aimed at decentralising innovation (PC Tech Magazine, 2026). This means that major Kenyan media houses are no longer interested in graduates who can only write well in conventional writing. Rather, the industry requires multi-skilled digital journalists capable of seamlessly combining video, data analytics and interactive web design. This change is fuelled by the accelerated development of mobile technology, with penetration at 83.5% in 2025, and brands have to shift to mobile-first advertising models (Citizen Digital, 2025). Colleges and universities are required to prepare students with the digital skills needed to be immediately employable. Technical skills are no longer a luxury but a necessity for professional entry into the competitive and converged communications marketplace (Arowa et al., 2025). However, this immense industry pressure to produce sophisticated, multi-platform innovators creates a high-stakes learning environment that exposes a critical psychological gap in current media pedagogy. While universities scramble to meet market demands through rapid technological deployment, the focus remains overwhelmingly on hardware and basic software operation. What is critically overlooked is the psychological toll this rapid transition takes on the learner, specifically how the cognitive burden of navigating new digital infrastructures directly suppresses the creative self-efficacy required for innovation.

Consequently, there is critical tension in the university media programmes. As East African higher education scrambles to keep pace with the requirements of the Silicon Savannah, a case in point is the ODeL Centre's deployment of digital labs and cutting-edge broadcasting gear to develop students' baseline competencies (Kabarak University, 2025). However, knowledge of advanced editing software or experience with a digital publishing platform is not enough to ensure a student creates something groundbreaking; the goal is innovative content creation. A large number of students use high-tech tools simply to copy the traditional, safe content formats to guarantee passing grades. This points to a great lack of connection: as universities are successfully imparting the operations of software, the next stage of basic to highly innovative content creation is still in pieces. A skills gap has persisted: graduates are technically proficient but unable to translate their skills into coherent journalistic stories needed by the profession. Institutional preparedness should thus be manifested in day-to-day academic practice, not just in policy declarations, addressing the curse of the blank screen that looms over many students (Pressgrove & Kinsky, 2023).

The literature often assumes a direct, positive relationship between technical skills and creative output. This assumption, however, pays little attention to the psychological barriers associated with digital media production. The gap in empirical research on why certain technically competent students innovate while others do not is substantial. The deficiency is a psychological gap in a student's creative self-efficacy (CSE). CSE can be described as an individual's ability to generate innovative, imaginative results (Pressgrove & Kinsky, 2023). CSE is a vital predictor of innovative behaviour because it encourages students to take risks, explore novel ideas, and persevere when faced with a challenging task (Handini et al., 2025). Lacking this psychological confidence, even the most motivated students might be left to work creatively uncertain, producing mechanical or derivative work rather than original innovation (Zhao & Phee, 2025). Therefore, the cultivation of CSE is as important as technical training in equipping students to work in complex, technology-based creative environments, which are now the mainstay of newsrooms in the modern world.

In an attempt to explain this phenomenon, this paper draws on John Sweller's Cognitive Load Theory (CLT). CLT explains how human learning is constrained by the processing capacity of working memory (Sortwell et al., 2026). Technical friction is an extraneous load on the working memory of a student struggling to make sense of complex digital tools. This superfluous burden is assumed to be unrelated to schema acquisition and to make it difficult to process new learning concepts effectively (Gkintoni et al., 2025). But once a student becomes highly digitally media fluent, this technical friction will be eliminated, and the extraneous load will be minimised. This liberated mental space develops a strong feeling of psychological security and self-confidence that can be directed into germane load the mental work of deep learning and schema construction (Kirschner, 2012). Recent studies show that reducing technological cognitive load enhances learning fluency, which directly encourages students to take the creative risks needed for innovation (Caton et al., 2022). The regulation of these cognitive loads allows teachers to establish optimal learning conditions that encourage creative expression.

Therefore, the primary objective of this study is to explore the conceptual path from technical skill to the institutional goal of innovative content creation among undergraduate students at Kabarak University, specifically investigating how cognitive load and creative self-efficacy mediate this process. To achieve a comprehensive understanding, this study utilises an exploratory, qualitative-dominant mixed-methods approach, a design well-suited to corroborating qualitative lived experiences with descriptive quantitative data, thereby enhancing overall validity (Creswell & Creswell, 2018). By pairing quantitative baseline profiling with qualitative student narratives, this research aims to provide deeply contextualised insights into the localised technical barriers students face. Greater digital competence and confidence in using modern technologies for learning could mitigate the negative impact of stress and promote greater involvement with innovative tasks (Arbulú et al., 2024).

To investigate this phenomenon, the study is guided by the following core Research Questions

RQ1: How does digital media fluency influence the development of creative self-efficacy among Mass Communication students? **RQ2:** In what ways do localised infrastructural constraints act as extraneous cognitive load to impact innovative content creation? **RQ3:** To what extent does creative self-efficacy serve as a psychological mediating mechanism bridging technical software mastery and creative risk-taking?

To quantitatively test the conceptual paths identified in the research questions, the following hypotheses were formulated based on Cognitive Load Theory and Social Cognitive Theory:

H1: Digital media fluency has a significant positive effect on the creative self-efficacy of Mass Communication students. **H2:** Localised infrastructural constraints (extraneous cognitive load) have a significant negative effect on students' digital media fluency. **H3:** Localised infrastructural constraints have a significant negative effect on the likelihood of innovative content creation. **H4:** Creative self-efficacy significantly mediates the relationship between digital media fluency and innovative content creation.

Literature Review

a. Digital media fluency

Digital media fluency represents a sophisticated level of competence that transcends basic operational digital literacy. Although literacy issues relate to basic knowledge of hardware and software, fluency is the skill of utilising technology intuitively to address complex, ill-structured problems and to produce new knowledge (Caton et al., 2022). Within the Kenyan higher education community, ICT literacy is usually defined by prior experience and computer ownership, which play a crucial role in determining students' interaction with digital storytelling tools (Niyigena et al., 2020). CLT suggests that high fluency is the key to reducing the technological cognitive load associated with multimedia production. When tools turn into an "invisible continuation of an intent of a student, they allow redistributing the cognitive resources to think critically and synthesise creatively (Caton et al., 2022). As a result, proficient students are more likely to cope with the demands of a converged newsroom, where the ability to combine various digital formats is a key requirement for entering the competitive communication marketplace (Mrisho & Dominic, 2023).

b. Creative self-efficacy as the psychological bridge

Creative self-efficacy (CSE) functions as the psychological bridge in this mediation model, determining whether technical proficiency translates into innovative practice. The concept of CSE was developed based on Bandura's Social Cognitive Theory and is defined as a person's belief in their ability to generate new and effective creative results (Tierney and Farmer, 2002). In media education, digital media fluency, as a form of technical mastery, offers the strongest source of self-efficacy (so-called mastery experiences) that students are likely to gain through such mastery (Handini et al., 2025). The extra cognitive load can be reduced by eliminating technical friction, and the germane load, the area of the mind where creative confidence is cultivated, can be expanded (Pressgrove & Kinsky, 2023). Creative output depends heavily on high levels of CSE, as they encourage students to persevere in the face of failure and to accept the risks involved in experimentation. In the absence of such psychological assurance, even technically proficient pupils will be able to come up with derivative or mechanical work. Therefore, CSE is the in-house mechanism that enables students to move beyond secure assignment templates (Zhao & Phee, 2025).

c. Innovative content creation

The dependent variable, innovative content creation, is conceptualised as innovative work behaviour (IWB) within a pedagogical media environment. This involves the intentional generation, promotion, and realisation of novel ideas to enhance the reach and impact of news content (Sudiyani et al., 2020). For undergraduate journalists, this can take the form of breaking away from conventional assignment formats to experiment with multi-platform stories, interactive data journalism, or generative AI services. But the high creative risk inherent in such innovation is evident, as unusual formats can be misinterpreted or fail testing. Recent studies on digital instruction models indicate that reducing the cognitive load of technical analysis is an important factor in enhancing students' professional confidence and improving their creative accuracy (Misnawati et al., 2026). Thus, it is only once students are both technically fluent enough to generate ideas in a mechanised fashion and have the creative self-efficacy to bear the risks that they will generate truly innovative ideas. Finally, cognitive flexibility, emotional endurance, and technical skill are all needed to achieve synergy that enables one to survive in the digital era of original media production (Caton et al., 2022).

Methodology

This study employs an exploratory, qualitatively dominant mixed-methods research design, operating within a pragmatist research paradigm. Although conventional mass communication research often relies on large-scale quantitative surveys to gauge digital literacy, numerical data alone may obscure the subtle, lived psychological experiences of students working in resource-based settings in the Global South. Thus, the proposed research will follow a concurrent triangulation design that has a specific qualitative focus (Creswell & Creswell, 2018). The quantitative data (based on Likert scales) are used descriptively to create a precise baseline portrait of students' cognitive load and technical fluency. At the same time, qualitative data (open-ended narratives) will be the primary analytical engine of the research project. This qualitative data is used to explore, in depth, the psychological processes, particularly creative self-efficacy, that govern innovative performance. This mixed methodology will guarantee an empirical basis and offer the thick description necessary to develop new theoretical models on localised technical constraints.

This study is geographically and institutionally based at Kabarak University, Kenya. The target population is undergraduate students undertaking Mass Communication programmes at the university. To ensure that the data reflect actual technical friction rather than a lack of underlying computer literacy, the study employed purposive sampling. Purposive sampling was utilised to select the exploratory cohort (N=30) based on stringent eligibility criteria designed to capture students actively navigating the university's digital infrastructure. To be included in the study, participants had to be actively enrolled as an undergraduate Mass Communication student at Kabarak University.

This type of non-probability sampling enabled the researcher to purposively select participants with the desired characteristics to address the research questions. To ascertain the internal validity of the qualitative narratives and the applicability of descriptive statistics, stringent eligibility criteria were implemented. The sample was filtered systematically based on academic status, curriculum exposure, and data integrity.

To ensure the validity and reliability of the data collection process, the research instruments were adapted from established, validated scales rather than developed in isolation. The quantitative Likert-

scale items measuring extraneous cognitive load were adapted from foundational measurement models grounded in Sweller's (1988) Cognitive Load Theory, specifically utilising contemporary cognitive load measurement frameworks (Leppink et al., 2013). Similarly, the items assessing Creative Self-Efficacy (CSE), alongside the qualitative open-ended interview protocols, were adapted from Bandura's Social Cognitive Theory. These were integrated with modern, media-specific CSE metrics utilised by Pressgrove and Kinsky (2023) and foundational scales by Tierney and Farmer (2002). Minor contextual modifications were applied to the original phrasing to ensure relevance to the localised realities of the Kenyan digital media ecosystem.

Data analysis occurred in two stages: parallel and integrated, following the concurrent triangulation design. The Likert-scale data underwent cleaning and coding and were then imported into a statistical analysis software (SPSS) to produce descriptive statistics, in particular central tendency (means) and variance. These descriptive statistics were used to chart the mathematical drop-offs between a student's conceptual ambition and practical performance, thereby creating the statistical foundation for the cognitive load penalty. At the same time, the qualitative stage employed a strict inductive thematic analysis using the framework developed by Braun and Clarke (2021). Open-ended answers were coded iteratively to reveal the recurrent, organic patterns in infrastructural friction, psychological empowerment, and academic risk aversion. Lastly, the research employed a mixed-methods Joint Display analytical approach. This was done by visual and analytical triangulation of quantitative descriptive means with qualitative thematic quotes in the findings chapter. It is a sophisticated integration method that enables the study to go beyond merely stating that there is a technical gap in innovation; the qualitative narratives are used to theorise why the gap is present within the particular infrastructural setting of Kenyan higher education.

Ethical Considerations

This research was carried out in accordance with the ethical guidelines in research involving human subjects. Ethical guidance and approval were obtained formally from the Kabarak University Research Ethics Committee (KUREC) under reference number KUREC-070226. Considering the digital nature of the data collection tool (a mixed method), KUREC specifically approved the use of digital informed consent. All participants gave informed consent before taking part in the research. The introductory section of the Google Forms questionnaire outlined the study's main goal, the voluntary nature of participation, and the approximate time commitment. Since the study involved sensitive pedagogical issues, namely students' technical frustrations, cognitive overload, and risk aversion, participants' anonymity and data confidentiality were explicitly guaranteed. They were made to understand that their answers would be kept confidential, analysed only in aggregate or through de-identified thematic quotes, and would not affect their academic grades, assessments, or reputation in the Mass Communication department. The admittance to the main quantitative and qualitative research tools was highly conditional. The participants had to select the required checkbox labelled 'YES, I agree to participate' and then proceed to the data collection blocks. Any person who refused to give this clear digital consent was automatically diverted and left the research without seeing the research questions.

Findings and Discussion

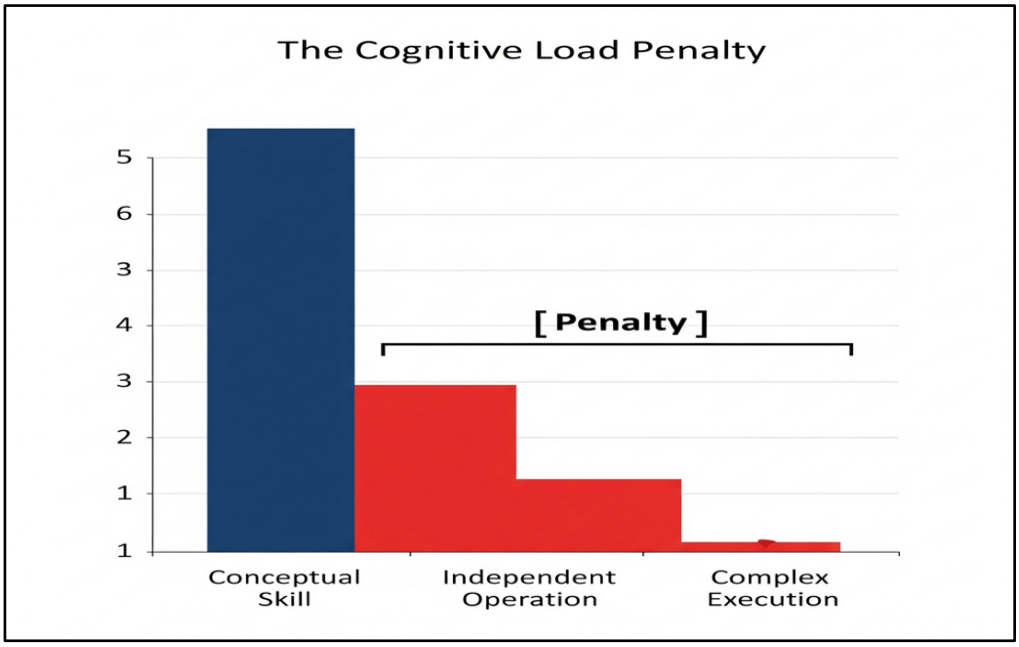
The initial stage of this research yielded a sample of N=30 undergraduate Mass Communication students from Kabarak University. Although it is a preliminary group, the data are highly variable and rich in qualitative detail, with the potential for robust concurrent triangulation of the proposed mediation

model. To meet the progressive mixed-methods reporting criteria, the combined results are reported across three core themes, in line with the study's theoretical framework. Instead of using separate statistical tables, this chapter uses built-in visual joint displays that synthesise statistical means (1 = Strongly Disagree, 5 = Strongly Agree) with thematic student narratives.

a. Digital media fluency and the systemic burden of extraneous cognitive load

The first thematic dimension of this study investigates the baseline of the proposed mediation model: the acquisition and practical application of digital media fluency. The quantitative data is critically analysed and demonstrates a strong pedagogical paradox between students' conceptual capacity to learn digital tools and their practical capacity to use them without cognitive dissonance. Although respondents displayed a solid conceptual ability in technology, as indicated by the high level of agreement with the statement, "*I learn how to use the new digital media tools very quickly*," the operational reality was dismal.

Figure 1: The regression from conceptual digital fluency to practical execution among Kabarak University students.



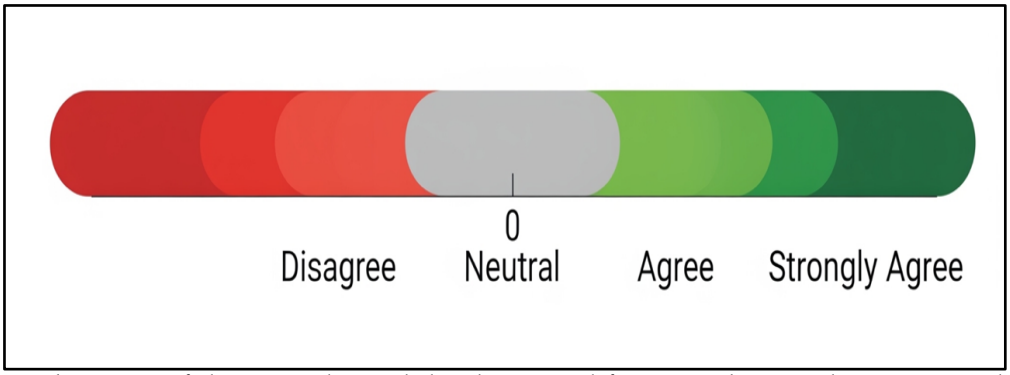
In the evaluation of practical implementation, namely, complex implementation and independent operation, the data show a considerable negative variance, with the mean dropping to M = 3.48. This statistical drop-off of over half a point between *learning* a tool conceptually and *applying* it in practice highlights a massive cognitive bottleneck in the learning environment.

In more traditional contexts of Cognitive Load Theory (CLT) in the Global North, researchers such as Sweller (1988) and Kirschner (2012) have largely attributed this form of extraneous cognitive load to ineffective teaching design or overly complicated software interfaces. There is some correspondence (a minority within the qualitative data of this study) with this traditional, software-centric perspective. As

an example, a student at Kabarak remarked that it can be frustrating simply because of the software architecture, where instruments are located differently across various editing programs. The other respondent cited the sheer amount of time and the complexities of using the software, and decried that what seems easy ends up being a big project that takes more time to evaluate.

But by concurrent triangulation, the overwhelming majority of the qualitative open-ended responses vigorously defy the Western belief that extraneous load is solely a program- or teaching-related problem. The qualitative narratives presented in the Kenyan context of higher education show that systemic and infrastructural deficits dominate references to extraneous load. In response to the question about the students' greatest technical frustrations, a significant number of answers centred on the sub-theme of Infrastructural Bottlenecks and Resource Competition. The statistics show that students' working memory is not primarily being hijacked by their inability to understand nonlinear editing programs; rather, the physical environment is consuming it. As one of the respondents eloquently explained, equipment accessibility during high volumes is a challenge, since everyone tries to work at the same time; the best high-processing machines are limited, hence the high degree of technicality. This feeling of infrastructural shortage was reiterated throughout the dataset. Students always mentioned hardware and software constraints, as well as a lack of modern equipment, such as computers and cameras, with one saying, "On occasion, I need to take photos and film some video, but the SD cards are smaller." Moreover, simple digital interconnection is a chronic cognitive interruptive. Several students cited infrastructural instability, including slow Wi-Fi, poor network connectivity, and settings that left one computer functioning effectively while others often slowed down in the computer lab. This difference in student experience, as demonstrated in Figure 2, where the struggle is strongly determined by access to hardware rather than by the ability to conceptualise, is graphically expressed in the divergent answers regarding working independently with software.

Figure 2: Variance in practical software execution, highlighting the percentage of students experiencing high extraneous cognitive load due to infrastructural friction.



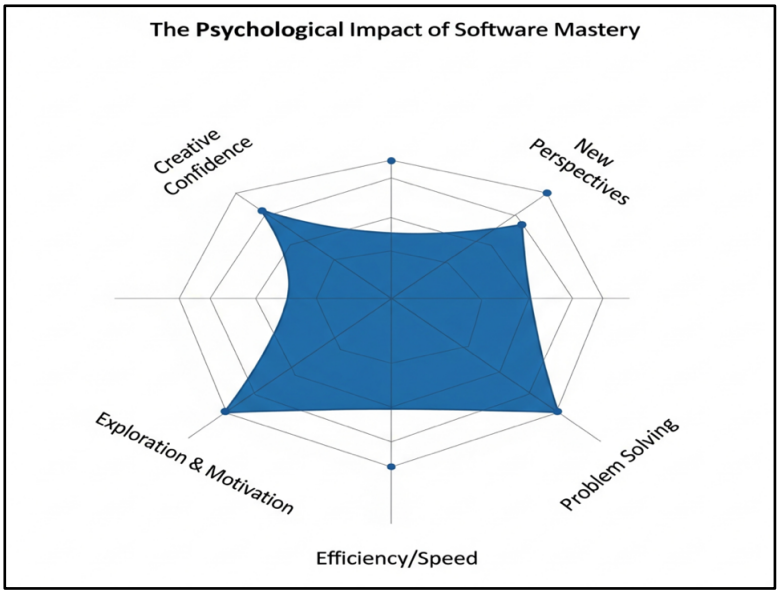
A combination of these results and the theoretical framework provide an essential development of the Cognitive Load Theory in the Global South. This paper presents the thesis that infrastructural friction

should be categorised as a critical, anthropogenically caused extraneous load. Since human working memory is highly constrained in processing power, the mental bandwidth of a student to troubleshoot a sluggish computer, find a working SD card, and even counterbalance a bad network connection all fully occupy the cognitive resources that otherwise would be used to germane load, the process of storytelling and innovation needs to be developed at a deeper level. These results, therefore, call into question the linear development proposed in the current Western literature. Although researchers such as Caton et al. (2022) assume that a decrease in technological friction follows naturally and smoothly, encouraging creative risk-taking, the statistics from Kabarak University show interference at a structural level. Although students may have high conceptual digital fluency, as they move to innovative content creators, physical constraints force them to stop. The students are stuck in the mechanical survival stage of media production. The germane capacity required to incubate creative self-efficacy is structurally unavailable until the environment-induced extraneous load is alleviated.

b. Creative self-efficacy as the psychological catalyst and the mastery bridge

As long as infrastructural extraneous load is the initial obstacle to innovation (as defined in Theme 1), the data suggest that Creative Self-Efficacy (CSE) is the key psychological mediator necessary to overcome it. The second thematic facet of this research explores Hypothesis 1 and Hypothesis 4, which concern how the effective attainment of digital fluency turns a student from a showman/mechanical operator into a confident, creative producer. The baseline quantitative data is the psychological cost of the infrastructural friction mentioned above. Their baseline creative confidence rating, when assessed, yielded the lowest mean score in the entire quantitative block (M = 3.48). But a significant mental transformation occurs when students are asked about the moment, they overcome these impediments and become masters of the software. The indicator of Creative Trust, i.e., trusting oneself to arrive at unique solutions to creative problems, has a strong value of M = -3.71.

Figure 3: Thematic Radar chart illustrating the multidimensional psychological expansion resulting from digital tool mastery.

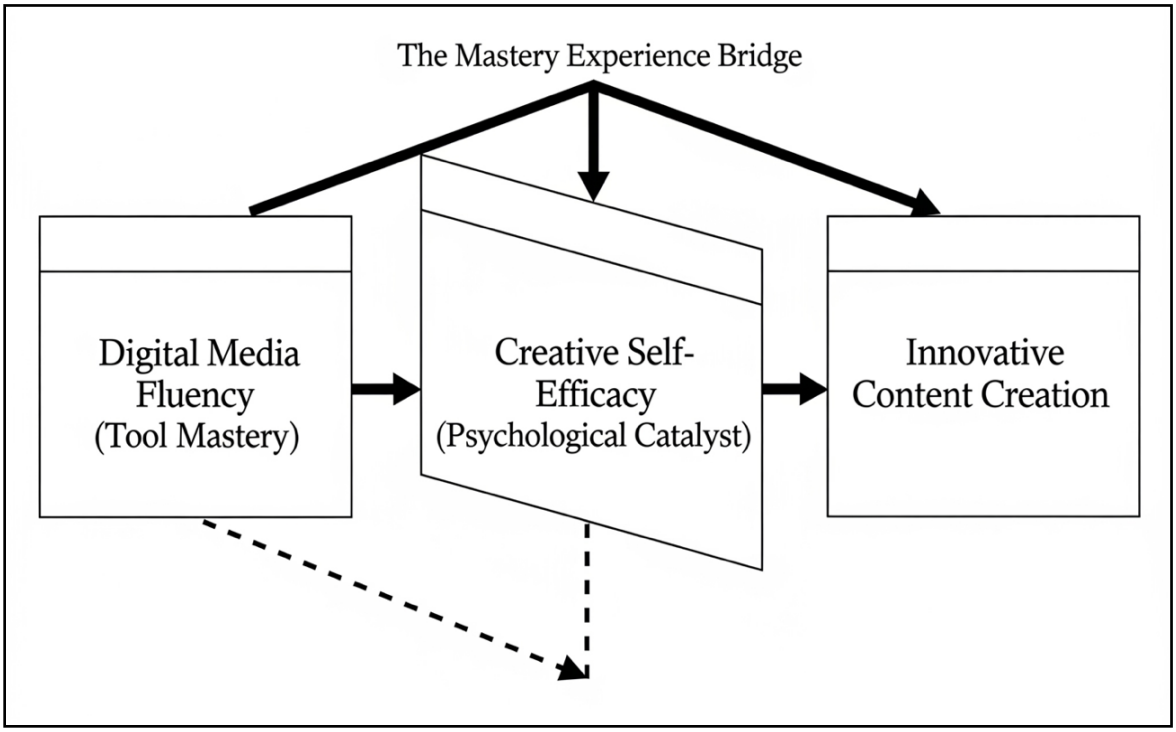


This quantitative recovery is emphatically explained by the qualitative narratives. When students were asked how mastering a difficult piece of software changes their approach to their next project, the responses were overwhelmingly anchored in the sub-theme of psychological empowerment and schema automation, as shown in Figure 4 below.

The qualitative data vividly illustrate this expansion. Students repeatedly utilised language associated with emotional and cognitive liberation. One student noted that mastery "*boosts my confidence and makes me more efficient in my work,*" while another explicitly linked technical skill to creative freedom, stating, "*It makes me more creative when coming up with my project and to have new ideas and feel free to execute them.*" Viewed through the theoretical lens of Albert Bandura's Social Cognitive Theory (SCT), this phenomenon perfectly illustrates the concept of "mastery experiences." Bandura posits that successfully executing a difficult task is the single most potent source of self-efficacy. For the Mass Communication students at Kabarak University, technical fluency is not merely a hard skill; it is a psychological incubator. As one student articulated, mastery "*equips you with problem-solving skills,*" while another noted it "*gives you a better understanding of quality and unique works in my projects.*" Crucially, this aligns seamlessly with the second phase of John Sweller's Cognitive Load Theory. Once the software is mastered—a process known as schema automation—the student no longer has to dedicate working memory to navigating the tool. The extraneous load vanishes, and the cognitive capacity is reallocated to germane load. The data captures this exact cognitive reallocation. Because the technical process becomes automatic, "*Increased efficiency and speed, and also helps in avoiding unnecessary steps*", the student is free to dedicate their mental energy to journalistic exploration. As one respondent powerfully summarised, "*It makes me want to explore more on other software, and I tend to feel motivated to start a new project, with the new knowledge gained.*"

This synthesis of findings affirms the arguments of Pressgrove & Kinsky (2023) and Handini et al. (2025), however, in the context of the Global South. The blank-screen syndrome that East African media students have to endure is not often a lack of imagination but a lack of psychological confidence rooted in technological doubt. The evidence shows beyond a reasonable doubt that Creative Self-Efficacy is not a personality trait but a highly conditional psychological state that can be unlocked through technical mastery (*see Figure 4 below*). Thus, unless university media are taught to push the buttons but consciously create these psychological mastery experiences, the curricula will not generate the confident, multi-skilled journalists that the converging digital newsrooms in Kenya require

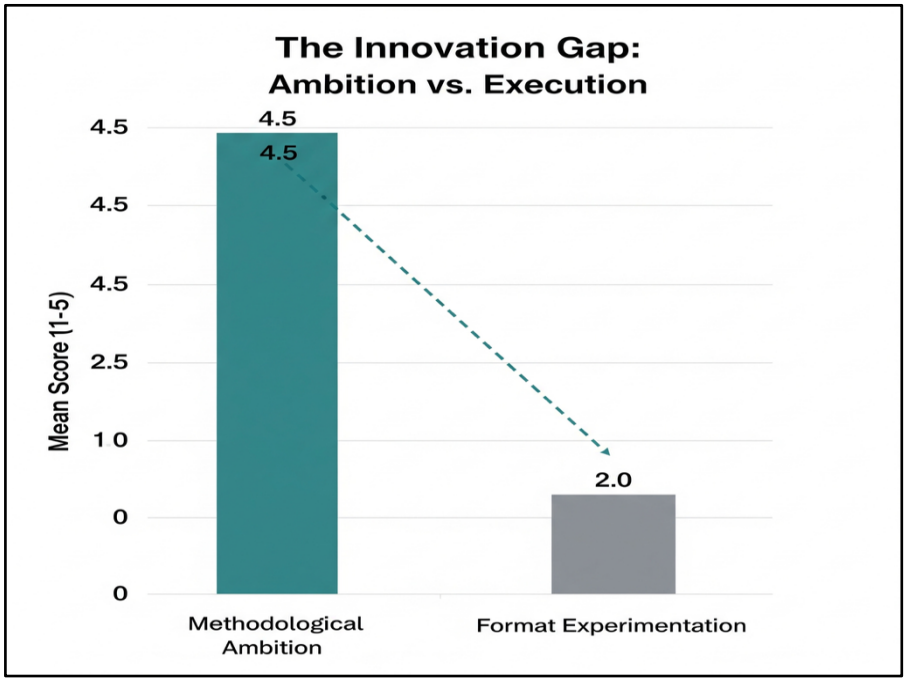
Figure 5: Conceptual path diagram demonstrating Creative Self-Efficacy as the mediating 'Mastery Bridge' between technical fluency and innovative output.



c. Realising innovative content creation and the risk aversion paradox

The ultimate objective of modern Mass Communication curricula, particularly within the context of Kenya's rapidly digitising 'Silicon Savannah,' is the realisation of Innovative Content Creation. The final thematic dimension of this study evaluates whether students at Kabarak University are successfully crossing the 'Mastery Bridge' (Theme 2) to produce the novel, multi-platform journalism demanded by the industry. A synthesis of the quantitative and qualitative data reveals a profound pedagogical conflict: a pronounced tension between the students' conceptual aspiration for novelty and their deep-seated fear of academic repercussions. Quantitatively, the data suggest a relatively high baseline willingness to explore new methods, with ambition for methodological innovation averaging M = 3.90. However, as illustrated in **Figure 5** below, when this ambition is tested against practical application specifically, the willingness to abandon standard, safe assignments for experimental formats, the metric drops to M = 3.52.

Figure 6: The Innovation Gap, illustrating the statistical drop-off between creative ambition and the practical execution of experimental media formats.

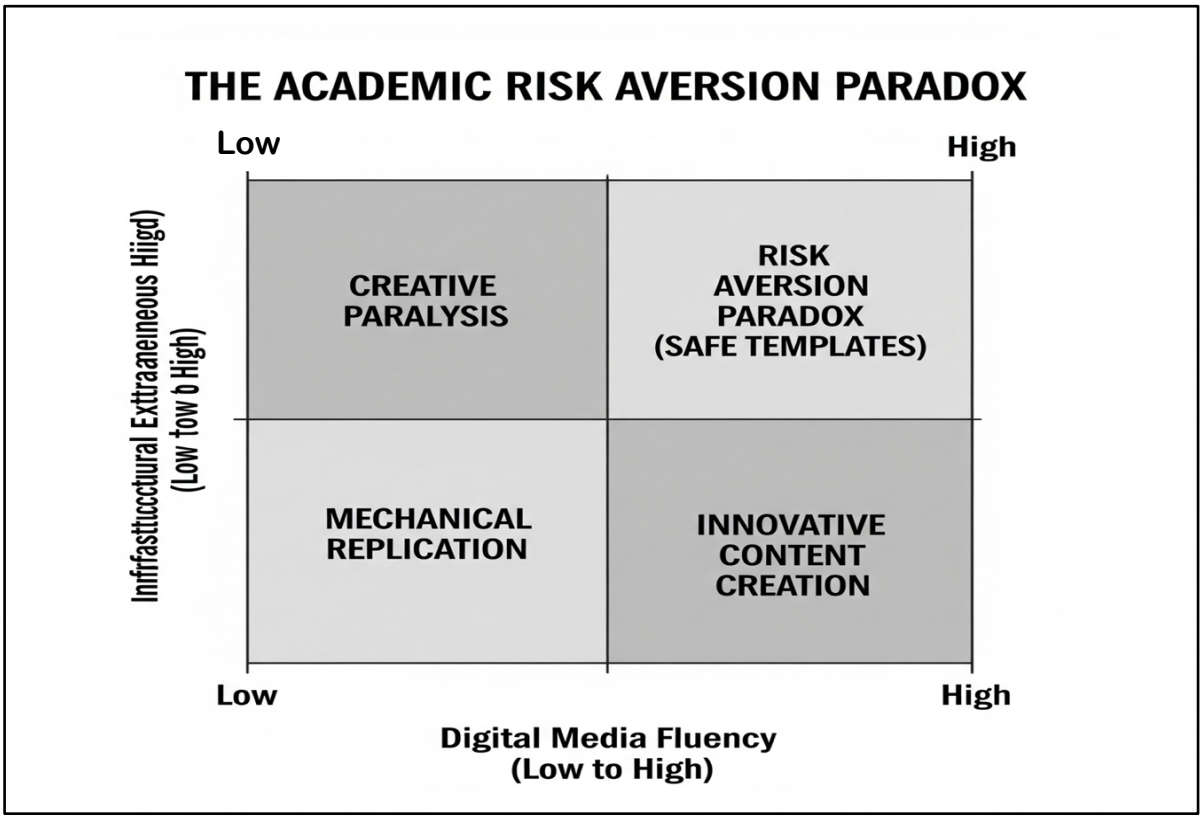


This statistical decline puts in place what this paper defines as the Academic Risk Aversion Paradox. The qualitative data highlight the valid reasons why students are afraid to implement innovative ideas. For undergraduate journalists, there is a high risk of breaking the templates. One of the students pointed out this risk-averse attitude when responding to the realities of trying complex digital projects, openly admitting he had tried to avoid what he had tried, and it had worked. This hesitation is not due to intellectual indolence but to a very rational calculation of intellectual and time resources. The Kabarak University learning environment has a high extraneous load due to infrastructure, as discussed in Theme 1. Thus, when trying an innovative format, this load is multiplied by a significant number. This was the exact dynamic captured by another student, who stated that when trying to innovate, what appears simple becomes a massive project that takes longer to assess. The anxiety of time wasted, system crashes, and the consequent risk of lower grades compels students to flee into self-preservation. They place greater emphasis on copying established, safe academic models rather than pursuing high-risk, high-reward innovative projects.

This paradox is very rational when considered through the prism of the combined theoretical approach of 'Sweller Cognitive Load Theory' and the Social Cognitive Theory of Bandura. An innovative 'Work Behaviour' needs to be loaded to the fullest with germane cognitive load, the room in which synthesis and new creation are happening. Nonetheless, when a student suspects that an innovative project will cause infrastructural breakdowns (extraneous load), he/she will consider innovation academic suicide. The results are very strong in favour of Hypothesis 2 and Hypothesis 3, which postulate that students will engage in this kind of creative risk only when their Creative Self-Efficacy (CSE) is sufficiently high

to provide a psychological cushion against potential failure. When students manage to overcome the extraneous load and master the software, their stories turn upside down with risk aversion giving way to integration into the industry. This is summarised in **Figure 6** below.

Figure 7: Conceptual matrix mapping the interaction between technical fluency, infrastructural cognitive load, and the resulting pedagogical outcomes.



Empowered students observe that the mastery implies "*You will be able to incorporate new technology... to improve the quality and high-end of framing new projects*". Conclusively, as shown, the industry needs multi-skilled digital journalists, a goal that cannot be achieved by subjecting students to sophisticated software. Environmental reinforcement of the curse of the blank screen (Pressgrove & Kinsky, 2023) is actively supported by environments that implicitly penalise technical risk-taking. Hence, the key thing is to create an academic ecosystem in which Creative Self-Efficacy prevails over the fear of academic risk. When universities in the Global South want to move students away from mechanical copying and toward actual innovation, curricula and grading rubrics must be restructured to explicitly reward technical

experimentation and creative risk, and to avoid rewarding failures that are inherent to the learning process.

Conclusion

The primary objective of this mixed-methods study was to empirically test the underlying psychological mechanisms. They facilitate the translation of basic software competency into genuine innovative content creation among Mass Communication undergraduate students at Kabarak University. The combined results substantially confirm the proposed structural mediation model, providing a deep reinterpretation of the student performance in digital laboratories, through a rigorous concurrent triangulation design. The evidence is clear that the so-called curse of the blank screen is not due to some underlying lack of student creativity or intellectual inspiration. This is a direct result of acute cognitive overload and subsequent shrinkage of creative self-efficacy. This study has found an important paradox, the Academic Risk Aversion Paradox, by correlating statistical variance with the narratives students live. The conceptual ambition of digital storytelling in this paradigm is evident in how students are systematically compelled to engage in the mechanical reproduction of safe, traditional templates. This is caused by the harsh infrastructural resistance of the learning space. Only when students have overcome this friction and attained real schema automation and operational mastery do they build the psychological Mastery Bridge. This bridge is the key incubator of Creative Self-Efficacy, which provides the internal reinforcement needed to overcome the fear of academic failure and transforms the student into a highly confident, creative media producer.

This research offers a significant, contextually situated advancement to John Sweller's Cognitive Load Theory (CLT), effectively expanding its traditional application within higher education. Within the current pedagogical discourse rooted in the Global North, extraneous cognitive load is discussed almost exclusively as a result of ineffective instructional design, a convoluted software interface, or a multifaceted multimedia presentation. Nevertheless, this paper has shown, through empirical evidence, that in the Global South, and in the case of Kenyan higher education in particular, extraneous load is predominantly imposed by environmental and infrastructural factors. Systemic deficits, including underperforming hardware, excessive competition for resources among student cohorts, and extremely shaky internet connectivity, are chronic (cognitive) disruptors. These physical impediments actively steal the limited bandwidth of a student's working memory and violently deny the student the opportunity to develop the germane cognitive load required to build deep schemas and engage in creative synthesis. Additionally, this study breaks new ground by applying a novel theory through the intentional combination of Cognitive Load Theory and Albert Bandura's Social Cognitive Theory. It shows that technical mastery in media education is not just a mechanistic skill that is to be ticked off a syllabus, but a psychological incubator that cannot be neglected. This combination demonstrates that reducing extraneous load is an unconditional precondition for creating the so-called mastery experiences that directly build the creative self-efficacy needed to produce high-level journalism innovations.

For higher education institutions operating within the ambitious, rapidly digitising ecosystem of Kenya's "Silicon Savannah," the pedagogical implications derived from these findings are both urgent and actionable. The statistics help to make it very clear that the minimum operational standard of acquiring the basic digital fluency, i.e., teaching students where to click the buttons in the editing software, is only the tip of the iceberg. The high level of psychological self-confidence required to innovate should be made the central business of contemporary media education in East Africa. To achieve this congruence with

industry needs, university curricula and the allocation of administrative resources must be vigorously reshaped. To begin with, institutional leadership should strive to inoculate against environmentally induced extraneous cognitive load by prioritising equitable, frictionless access to dependable, high-performance digital equipment and stable digital infrastructure. Second, and perhaps more importantly, the media faculties have to undergo a philosophical shift in how they assess student output. Departmental grading rubrics need to be radically reassessed to explicitly reward innovative risk-taking, experimentation with different formats across multiple platforms, and ambition in methodology. Teachers must actively deconstruct the Risk Aversion Paradox. They bear the responsibility for establishing psychologically safe learning spaces that encourage complex media innovation, rather than implicitly punishing early technical or aesthetic failures. A systemic pedagogical shift is imperative. Modern, converged newsrooms demand multi-skilled digital journalists. To produce these graduates, university media programs must stop demanding error-free mechanical replication and start promoting confident, boundary-pushing experimentation.

References

Andrysiak, J. (2025). Cognitive load theory. In T. Huff (Ed.), *Design in Progress: A Collaborative Text on Learning Theories*. Pressbooks. https://id-pro.pressbooks.com/chapter/cognitive-load-theory

Arbulú Pérez Vargas, C. G., Moreno Muro, J. P., Pérez Delgado, J. W., Espino Carrasco, D. K., Fernández Cueva, A., & Acosta-Enriquez, B. G. (2024). Mediating role of digital skills and mobile self-efficacy in the stress and academic engagement of Peruvian university students in post-pandemic virtual environments. *BMC Psychology, 12*(1), 481. https://doi.org/10.1186/s40359-024-01982-5

Arowa, O., Okoeguale, K., Mainga, G., Murphy-Braynen, L., Thompson, S., & Robins, H. (2025). Advertising executives' perception of Nigerian mass communication graduates' workforce readiness and employability in Lagos. *Journal of Advertising and Digital Studies, 8*(4), 25-49. https://doi.org/10.31920/2516-2713/2025/v8n4a2

Caton, A., Bradshaw-Ward, D., Kinshuk, & Savenye, W. (2022). Future directions for digital literacy fluency using cognitive flexibility research: A review of selected digital literacy paradigms and theoretical frameworks. *Journal of Learning for Development, 9*(3), 381–393. https://doi.org/10.56059/jl4d.v9i3.818

Citizen Digital. (2025, December 11). *Kenya's digital media landscape experiences remarkable growth in 2025*. https://www.citizen.digital/tech/kenyas-digital-media-landscape-experiences-remarkable-growth-in-2025-n354964

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Gkintoni, E., Antonopoulou, H., Sortwell, A., & Halkiopoulos, C. (2025). Challenging cognitive load theory: The role of educational neuroscience and artificial intelligence in redefining learning efficacy. *Brain Sciences, 15*(2), 203. https://doi.org/10.3390/brainsci15020203

Handini Asitha Putri, Ahmad, R. M., Wilujeng, I., & Safitri. (2025). Enhancing creative self-efficacy through creative problem-solving-based e-modules: An effectiveness study. *Journal of Mathematics Education, 4*(2), 338–348. https://doi.org/10.58421/gehu.v4i2.401

Janssen, O. (2000). Job demands, perceptions of effort-reward fairness and innovative work behaviour. *Journal of Occupational and Organisational Psychology, 73*(3), 287–302.

Kabarak University. (2025). Issue No. 2: Digital transformation in higher education: From strategy to readiness. *Kabarak University ODeL Centre*. https://kabarak.ac.ke/digihub

Kirschner, P. A. (2012). Cognitive load theory in e-learning. *Open University of the Netherlands*. https://doi.org/10.4018/978-1-4666-0315-8.ch097

Misnawati, M., Bin Tahir, S. Z., Masriadi, M., Hidayahni Amin, F., & Sibali, A. (2026). Bridging the usability gap in ESP: Enhancing engagement and lexical competence through digital corpus-based instruction. *Frontiers in Education, 11*, 1773277.

Mrisho, D. H., & Dominic, N. A. (2023). Media literacy: Concept, theoretical explanation, and its importance in the digital age. *East African Journal of Arts and Social Sciences, 6*(1), 78–85. https://doi.org/10.37284/eajass.6.1.1087

Niyigena, J. P., Jiang, Q., Ziou, D., Shaw, R. S., & Hasan, A. S. M. T. (2020). Modelling the measurements of the determinants of ICT fluency and evolution of digital divide among students in developing countries—East Africa case study. *Applied Sciences, 10*(7), 2613.

Oyako, A. (2024). *The relevance of journalism schools in producing talent for a converged newsroom: A case of Uganda* (Unpublished master's dissertation). Aga Khan University.

PC Tech Magazine. (2026, March 12). *Kenya hits milestone in Silicon Savannah ambitions with 300 active digital hubs*. https://pctechmag.com/kenya-hits-milestone-silicon-savannah

Pressgrove, G. N., & Kinsky, E. S. (2023). "Unapologetically original": Building creative self-confidence in the public relations curriculum. *Journal of Public Relations Education, 9*(1), 35–61. https://journalofpreducation.com/?p=3650

Sortwell, A., Gkintoni, E., Díaz-García, J., Ellerton, P., Ferraz, R., & Hine, G. (2026). Beyond cognitive load theory: Why learning needs more than memory management. *Brain Sciences, 16*(1), 109. https://doi.org/10.3390/brainsci16010109

Sudiyani, N. N., Kariyana, I. M., Sawitri, N. P. Y. R., Perdanawati, L. P. V. I., & Setini, M. (2020). The role of creative self-efficacy as mediating on entrepreneurial leadership and innovative work behaviour. *Solid State Technology, 63*(6), 2449–2463.

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science, 12*(2), 257–285. https://doi.org/10.1207/s15516709cog1202_4

Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal, 45*(6), 1137–1148.

van Mierlo, C. M., Jarodzka, H., Kirschner, F., & Kirschner, P. A. (2012). Cognitive load theory in e-learning. *Cognitive Load Theory in E-Learning*, 1179–1211. https://doi.org/10.4018/978-1-4666-0315-8.ch097

Zhao, L., & Phee, C. (2025). Understanding the influence of learning attitudes on creative self-efficacy in graphic design: A PRISMA-guided systematic review. *International Journal of Sciences: Basic and Applied Research, 14*(2), 117–135.