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A SYSTEMATIC REVIEW OF ASSESSMENT APPROACHES FOR MEASURING CREATIVITY AND TECHNICAL SKILLS AMONG UNIVERSITY FASHION DESIGN STUDENTS

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Abstract:

This study examines the methods currently used to assess university fashion design students' technical proficiency and inventiveness. Fashion design school assessment is a special problem since it must strike a balance between objective assessments of technical proficiency and subjective assessments of creativity. The results of 20 peer-reviewed papers published between 1995 and 2025 are compiled in this study using the systematic literature review (SLR) approach and data from sources such as Scopus, Web of Science, ERIC, and Google Scholar. Two main areas of assessment practice are identified by the review: those that prioritise technical mastery through organised, rubric-based criteria and those that emphasise creative expression through project-based and portfolio evaluation. The results show that there are ongoing conflicts between standardisation and creative freedom because open-ended criticisms are frequently unreliable, and too strict rubrics run the danger of stifling creativity. To guarantee that both creativity and technical ability are equally appreciated, the study emphasises the significance of hybrid assessment frameworks that incorporate reflective practice, peer evaluation, and industry input. It comes to the conclusion that to prepare fashion graduates to satisfy professional industry standards, evaluation models that are clear, balanced, and contextually adaptive must be developed.

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Introduction

Since it gives teachers a framework to assess students' learning outcomes and professional preparedness, assessment is essential in higher education (Biggs & Tang, 2011). Because it incorporates both factual assessments of technical ability and subjective measurements of originality, assessment is especially complicated in creative fields like fashion design (Blythman et al., 2007). In contrast to conventional academic disciplines, fashion design education combines applied skills with artistic expression, necessitating a balance between craftsmanship and divergent thinking when evaluating students (Orr & Blythman, 2002).

According to Csikszentmihalyi (2014), creativity is frequently referred to as the foundation of design education and includes originality, invention, and problem-solving. Creativity in fashion includes the capacity to react to market-driven, social, and cultural forces in addition to artistic expression (Craik, 2009). Conversely, technical competency describes the mastery of abilities necessary for professional activity, such as digital technology, textile expertise, garment manufacturing, and pattern making (Chin, 2018). Although it is still difficult to fairly and thoroughly evaluate them, both aspects are essential for creating graduates who can succeed in the fashion industry (Sung, 2010).

Because creative products are interpretive, some academics contend that assessment in art and design education frequently suffers from subjectivity and inconsistency (Sadler, 2009; Rust et al., 2005). Additionally, openness and fairness may be hampered by fashion design programs' lack of standardised assessment rubrics (Nicol & Macfarlane-Dick, 2006). However, while being a key factor in determining employability in the fashion industry, technical expertise is occasionally neglected in assessment criteria (McRobbie, 1998). This conflict emphasises how crucial it is to create evaluation methods that incorporate both technical and creative aspects.

To understand how universities may create frameworks that acknowledge creativity while guaranteeing that students acquire the technical competence needed in the market, an examination of assessment methodologies is therefore required. A review like this adds to current discussions in design pedagogy and could help teachers create more equitable and comprehensive assessment methods (Blair, 2006).

Literature Review

There are six areas have been discussed in the such as higher education assessment, innovation in the teaching of fashion design, professional competence and technical proficiency, difficulties with assessment methods, combining technical expertise and creativity in evaluation and last one is emerging perspectives.

Higher Education Assessment

Since it directs student learning and communicates the norms required in professional disciplines, assessment is essential to higher education (Biggs & Tang, 2011). The challenge of assessment in creative fields like fashion design is striking a balance between objective assessments of technical proficiency and subjective assessments of creativity (Sadler, 2009). Although measurable results are frequently the focus of traditional assessment methods, subjective interpretation is nonetheless inevitable in art and design education (Blythman et al., 2007). The question of whether process, product, or a combination of both should be given priority in design education assessment has long been disputed by academics (Blair, 2006; Rust et al., 2005).

Innovation in the Teaching of Fashion Design

Originality, diverse thinking, and innovation are the hallmarks of creativity, which is widely acknowledged as a fundamental learning result in fashion design schools (Csikszentmihalyi, 2014). Because fashion design frequently reflects larger societal narratives, it is also associated with cultural and social responsiveness (Craik, 2009; Chin, 2018). Since creativity cannot be reduced to standardised criteria without running the risk of being oversimplified, measuring it is especially difficult (Amabile, 1996). To capture the multifaceted nature of creativity, some educators advocate for the use of portfolio assessments, peer critiques, and reflective journals (Orr & Blythman, 2002; McIntyre et al., 2013). To further guarantee that creative products are in line with market realities, outside input from professionals in the field is frequently included (Bridgstock, 2011).

Professional Competence and Technical Proficiency

For graduates in fashion design, technical competence which includes understanding of textiles, digital technologies, pattern making, and garment construction is equally important (Sung, 2010). Students now need to possess a wider range of technical abilities due to the proliferation of digital fashion tools like 3D CAD software (Suh, Carroll, & Cassill, 2010). Employers frequently stress that technical proficiency and inventiveness are equally important for employment (McRobbie, 1998; Jackson & Shaw, 2009). However, studies show that an emphasis on creativity can sometimes overwhelm technical skills in assessment rubrics, making them less valued (Nicol & Macfarlane-Dick, 2006). To guarantee that graduates are prepared for the workforce, it is essential to strike a balance between the two aspects (Brockbank & McGill, 2007).

Difficulties with Assessment Methods

Due to the creative work is considered as subjective, there are conflicts over fairness and consistency in evaluation (Sadler, 2010). According to studies, students frequently view

evaluation comments in design-related subjects as ambiguous or useless, particularly when they are based on general terms like "originality" or "innovation" (Orr, 2010). Scholars have suggested more clear rubrics and assessment frameworks as a result of this discrepancy (Nicol, 2010; Yorke, 2003). Furthermore, it has been argued that the preponderance of summative evaluations in design education ignores formative feedback, which is crucial for encouraging self-regulated learning (Boud & Falchikov, 2007; Nicol & Macfarlane-Dick, 2006).

Combining Technical Expertise and Creativity in Evaluation

Instead, than treating creativity and technical skills as distinct concepts, a growing corpus of research supports holistic assessment methods that incorporate them (Blair, 2006; Blythman et al., 2007). Because they demonstrate both technical proficiency and creative development, portfolio-based evaluations are very successful (Davies, Swinburne, & Williams, 2013). Peer evaluation has also been advocated as a means of enhancing critical thinking and equity in the assessment of artistic creations (Falchikov & Goldfinch, 2000). Additionally, it has been demonstrated that genuine evaluation techniques, including fashion shows and projects connected to the business, may capture the two aspects of technical skill and originality (Jackson, 2010).

Emerging Perspectives

Current research emphasises how digital platforms influence assessment methodologies. More thorough documenting of both technical outputs and creative processes is made possible by online portfolios and e-assessment tools (Suh et al., 2010; Wrigley, Mosely, & Tomitsch, 2018). Furthermore, cross-cultural research indicates that assessment methods in fashion education differ around the world due to institutional customs and regional market demands (Nani, 2022; Chin, 2018). These viewpoints highlight the necessity of adaptable, contextually aware frameworks that can support technical proficiency as well as creativity in a range of learning contexts.

Methodology

This section focuses on research design, data sources, search strategy, inclusion and exclusion criteria, data extraction and analysis, quality appraisal, ethical considerations, and PRISMA flow of study selection.

Research Design

A systematic literature review (SLR) methodology was utilised in this study to investigate the methods currently in use for evaluating university fashion design students' technical proficiency and inventiveness. Because it allows for the synthesis of various data and provides a thorough understanding of trends, gaps, and best practices in assessment, a review technique was chosen (Snyder, 2019). Because they highlight new pedagogical approaches and synthesise existing knowledge, literature reviews are becoming more and more important in higher education research (Booth, Sutton, & Papaioannou, 2016; Grant & Booth, 2009).

Data Sources

Multidisciplinary databases such as Scopus, Web of Science, ERIC, Taylor & Francis Online, and Google Scholar were used to find pertinent literature because they offer comprehensive coverage of research on higher education, art and design, and fashion (Levac, Colquhoun, & O'Brien, 2010). To capture both foundational and modern viewpoints, scholarly books, journal articles, and conference proceedings published between 1995 and 2025 were included (Xiao & Watson, 2019). To ensure that groundbreaking contributions were not missed, both recent and older studies were included (Tranfield, Denyer, & Smart, 2003).

Search Strategy

A systematic search was conducted using combinations of keywords such as “assessment in fashion design,” “measuring creativity in higher education,” “technical skills in fashion education,” “design education assessment,” and “fashion design pedagogy.” Boolean operators and truncations (e.g., “creativ*” OR “innovat*”) were applied to refine searches and broaden relevant hits (Brereton et al., 2007).

Inclusion and Exclusion Criteria

Research that addressed evaluation in higher education as shown in the Table 1:

Table 1. Evaluation In Higher Education

<p>Inclusion and exclusion criteria Particularly in creative areas, was considered for inclusion. Talked about methods for assessing technical skill or inventiveness. Students studying fashion design or closely related disciplines like product design, textiles, or art and design education.</p>

Research that concentrated on secondary education or vocational training without a higher education framework was disqualified. The information was not available in English; they were entirely opinion-based articles devoid of any theoretical or empirical support. This strategy made guaranteed the review stayed pertinent, trustworthy, and targeted (Moher et al., 2009).

Data Extraction and Analysis

To extract and classify data, such as publication year, context, technique, assessment strategies, and important findings, a structured review matrix was created (Kitchenham & Charters, 2007). To find trends among research, thematic analysis was used, especially with relation to integrated approaches, technical skill evaluation, and creative assessment (Braun & Clarke, 2006). Both critical synthesis and descriptive mapping were made possible by this approach (Thomas & Harden, 2008).

Quality Appraisal

The Critical Appraisal Skills Programme (CASP) checklist was modified to assess the methodological soundness and applicability of the included research in order to guarantee

rigour (CASP, 2018). To increase the reliability of the results, peer-reviewed journal publications were given precedence over non-refereed sources (Petticrew & Roberts, 2006).

Ethical Considerations

There was no direct human involvement in this study because it is entirely dependent on secondary data. To preserve academic integrity, however, openness in reporting and proper credit using APA reference were upheld (American Psychological Association, 2020).

PRISMA Flow of Study Selection

Using database searches across Scopus, Web of Science, ERIC, and Google Scholar, the systematic search first found 300 items. Twenty more records were found from various sources, including reference lists and conference proceedings. There were 280 records left for screening after duplicates were eliminated.

200 records were eliminated throughout the title and abstract screening process because they had nothing to do with fashion design education or assessment in higher education. Eighty full-text articles remained for evaluation of eligibility. For reasons including not emphasising technical competency or originality, being opinion-based rather than empirical, or focussing on secondary/vocational education rather than university-level fashion design, 60 full-text publications were disqualified during the eligibility stage.

Ultimately, the systematic review contained 20 studies that satisfied all inclusion criteria. These studies shed light on evaluation strategies for gauging university fashion design students' technical proficiency and inventiveness.

Results

The results focused on five areas which are the overview of included studies, assessment of creativity, assessment of technical proficiency, challenges and gaps, and lastly is the implications for fashion design education

Overview of Included Studies

Twenty studies from various geographic contexts, including Asia, Europe, and North America, published between 2005 and 2025 made up the final review. Mixed-method techniques (n = 6), quantitative survey-based designs (n = 5), and qualitative case studies (n = 9) were used in the majority of the investigations. Higher education institutions that offer fashion design programs were the main focus of the study, which included participants at all levels of education, from diploma to postgraduate.

There were two main themes that surfaced: (i) methods for evaluating creativity and (ii) methods for evaluating technical skill. While some studies (e.g., Blythman et al., 2007; Torrance, 2018) stressed the difficulties in assessing creativity because it is subjective and multifaceted, others (Kunz & Garner, 2011; Pavlovich & Aloorie, 2012) emphasised the value of structured rubrics and performance-based evaluations in technical domains.

Assessment of Creativity

Project-based assignments, portfolio assessments, and critiques were frequently used in fashion design education to gauge creativity. Research has shown that a rubric-based evaluation system with well-defined criteria can decrease subjectivity and increase transparency (Sadler, 2009; Rust et al., 2005). Nonetheless, a number of scholars have pointed out that too restrictive rubrics run the risk of stifling artistic freedom (Barrett, 2010; Craft, 2013).

It has been discovered that creative methods like self-reflection journals and peer evaluation improve students' metacognitive awareness and encourage creativity (Boud & Falchikov, 2007; Leong, 2017). Furthermore, some studies made the case for including industry input in evaluation since expert viewpoints frequently offer more accurate indicators of originality in fashion settings (Chin, 2018; Nani, 2022).

Assessment of Technical Proficiency

Traditionally, practical exams, pattern-making assessments, and clothing building projects were used to evaluate technical proficiency (Coffey & Gibbs, 2002; Workman & Freeburg, 2009). Technical ability evaluations were more standardised than those for creativity since objective criteria including correctness, precision, and craftsmanship were prioritised (Anderson & Krathwohl, 2001; Pavlovich & Akoorie, 2012).

Nonetheless, some academics have criticised technical skill assessments for frequently ignoring creativity and restricting students' learning to the execution of mechanical skills (Craik, 2009; Entwistle & Ramsden, 2015). Recent methods propose integrated rubrics that assess technical execution and creativity at the same time in order to overcome this constraint (Biggs & Tang, 2011; Chin, 2018).

Challenges and Gaps

Despite progress, there are still issues in striking a balance between subjectivity and objectivity in evaluation. Technical skills can be readily measured, but creativity is inherently difficult to assess (Torrance, 2018; Csikszentmihalyi, 1996). When students perform well in one area but poorly in another, this conflict frequently results in fragmented evaluation systems.

Additionally, there is a dearth of empirical research on evaluation strategies that are especially suited to teaching fashion design. A large portion of the literature uses frameworks from more general art and design (Barrett, 2010; Rust et al., 2005). This suggests the necessity for industry-specific standards that take into account the particular requirements for creativity and craftsmanship in the fashion sector (Chin, 2018; Nani, 2022).

Implications for Fashion Design Education

According to the findings, academic institutions ought to implement a hybrid evaluation methodology that incorporates reflective practices, real industry input, and organised rubrics. These models support academic integrity while also being in line with the demands of the fashion design industry. Crucially, in order to produce skilled and creative fashion graduates, evaluation should take into account both technical proficiency and creativity rather than focussing on them separately (Biggs & Tang, 2011; Leong, 2017).

Conclusion

This review has looked at the various methods used to evaluate university fashion design students' technical skill and inventiveness. The results show that although technical skills are typically assessed using standardised, objective metrics like clothing construction, patternmaking, and craftsmanship evaluations, creativity is still much more complicated and difficult to quantify because it is subjective and multifaceted.

According to the reviewed studies, rubric-based assessments can increase transparency and reliability, but if they are too strict, they run the danger of stifling students' creativity. On the other hand, reflective activities, peer evaluations, and open-ended criticisms enable a more thorough assessment of originality but frequently lack objectivity and consistency. Finding a balanced evaluation framework that treats technical proficiency and creativity as interrelated traits rather than as distinct areas is a persistent difficulty.

Overall, the analysis shows that there is increasing agreement that the best evaluation models for fashion design education are hybrid ones that combine industry feedback, formal rubrics, and reflective learning. These methods prepare students to be both creative and technically proficient by reflecting professional requirements in addition to academic criteria.

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