INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES

Vol 16, Issue 1, (2026) E-ISSN: 2222-6990

Quality of Online Learning among Working Adults: A Self-Regulated Learning Perspective

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DOI Link: http://dx.doi.org/10.6007/IJARBSS/v16-i1/27470

Published Date: 12 January 2026

Abstract

This study investigates the current state of learning quality among working adults in online education, emphasizing key dimensions such as engagement, planning, and outcomes. Drawing on foreign quality assurance literature (e.g., Phipps & Merisotis, 2000; Lam & McNaught, 2007), self-regulated learning (SRL) theory (Zimmerman, 1989), quantitative surveys (n=1394), and grounded theory analysis, findings reveal moderate overall quality (M=3.15/5.0), with strengths in motivation (M=3.45) and strategies (M=3.40), but deficits in interaction (M=2.85) and planning (M=2.90). Eight core dimensions emerge: readiness, drive, planning, interaction, engagement, strategy application, task completion, and gainsupported by NVivo modeling. Planning clusters show 70%+ agreement but high variability (14% high, 65% medium, 22% low). These insights highlight process support gaps, advocate learner-centered interventions, and bridge provider-focused standards with SRL for enhanced adult online outcomes.

Keywords: Online Learning Quality, Self-Regulated Learning, Working Adults, Learner Engagement, Planning Deficits, Interaction Gaps, Srl Dimensions

Introduction

Online education has surged among working adults seeking professional advancement amid busy schedules, yet ensuring learning quality remains challenging. Traditional quality assurance frameworks prioritize institutional supports, design, and interactions (Phipps & Merisotis, 2000; Frydenberg, 2002), while overlooking learner agency critical for this demographicbalancing work, life, and study. This study addresses: To investigate the current state of learning quality among working adults in online education, focusing on engagement, planning, and outcomes.

Grounded in SRL theory (Zimmerman, 1989), which posits cyclic phases of planning, performance, and reflection driving metacognitive, motivational, and behavioral processes, we integrate quantitative (Likert-scale survey) and qualitative (grounded theory via NVivo 12 Plus) data. Survey results indicate moderate quality (M=3.15), with dimensional variances signaling engagement shortfalls. Grounded analysis consolidates 52 categories into eight dimensions, modeling structural relationships.

Significance of the Study

This research holds practical and theoretical value. Theoretically, it extends quality assurance literaturerich in provider perspectives (e.g., IHEP, Sloan pillars)by centering SRL, revealing learner dimensions underexplored for working adults (e.g., career-driven planning). It unifies fragmented models (e.g., ELQ, MEST) into an eight-dimension framework validated empirically.

Practically, moderate quality (especially low interaction/planning) informs interventions: platforms could embed SRL prompts (goal trackers, reflection tools), institutions foster engagement (forums, peer mentoring), and adults receive training for self-regulation amid work constraints. In India and globally, where online higher education grows (e.g., for diplomas), findings guide policyenhancing retention, outcomes like skills/job promotion. Cluster insights (e.g., 22% low planners) enable targeted support, boosting employability and lifelong learning.

Literature Review: Quality Assurance in Online Education

In online education, "quality assurance" centers on judging criteria. Phipps and Merisotis (2000), via interviews and Likert surveys, outlined seven dimensions validated across stakeholders: Institutional Support; Course Development; Teaching and Learning; Course Structure; Student Support; Faculty Support; and Evaluation and Assessment.

Lam and McNaught (2007) listed seven essentials: clear planning; reliable infrastructure; learner supports; faculty-student communication; feedback; courseware standards; and student assessment input. Both emphasize interactiondirectly in McNaught and via "teaching and learning" in Phipps and Merisotis.

Frydenberg (2002) proposed nine: institutional commitment, technical support, student services, design, guidance, mentoring, teaching, finance, regulation, and evaluation. Stojan et al. (2022) highlight learner assessment.

Common themes prioritize institutional vision, commitment, leadership, planning, design, and management. "Institutional commitment" appears frequently; teaching and learning follows.

Organizational guidelines include U.S. IHEP benchmarks (5 areas, 45 items: support, curriculum, services, training, effectiveness; R. Huang et al., 2003); DETC's 13 elements (Du et al., 2009); Russia's 7 dimensions (plans, materials, tech, methodology, capacity, personnel, organization; Azainil et al., 2018); Sloan Consortium's 5 pillars (effectiveness, satisfaction, cost, access; Altun & Johnson, 2022); Sweden's ELQ (10 dimensions: content, structure, interaction, assessment, flexibility, support, staff, leadership, resources); South Korea's MEST

(95 standards in 6 areas: planning, teaching, resources, management, outcomes); and SEEQUEL (Dondi et al., 2006).
Provider provisions dominate, followed by teaching-learning (e.g., interactions and feedback; Jeri, 2023) and supports. Learner perspectivesmotivation, engagementare vital yet overlooked.

Theoretical Framework: Self-Regulated Learning Theory
The 1970s marked a learner-centered shift, focusing on self-regulation: goal-setting, planning, strategies, monitoring, assessment, feedback. Learning became the learner's activity. By the mid-1980s, Zimmerman (1989) defined SRL as "systematic activation... of metacognitive, motivational, affective, and behavioral processes... to achieve learning goals," per Bandura's theory.

SRL involves metacognition, motivation, behavior across three phases (Zimmerman, 1990): planning (goals, strategies, efficacy, interest, environment); performance (monitoring, time management, help-seeking); self-reflection (assessment, adjustment). Individual quality and processes correlate with outcomes (Deng et al., 2016).
Self-regulated learners proactively master content, assume responsibility, and adapt. SRL stresses environment creation, planning, and active participation, linking to better results. It frames cognitive, motivational, affective elements, ideal for online learning quality.

Methodology and Findings
Quantitative survey (n=1394) shows moderate quality (M=3.15), higher in motivation/strategies, lower in interaction/planning.
Qualitative grounded theory aggregated 52 first-level into 22 second-level and 8 main categories: readiness, drive, planning, interaction, engagement, strategies, task completion, gain (Table 1). Core category: "quality of online learning for working adults,"

Table 1
Relational Coding

Open Coding Subcategories	**Axial Coding Subcategories**	**Selective Coding Categories**
A1 Knowledge Foundation; A2 Quality Foundation; A3 Learning Identity	B1 Knowledge Preparation; B2 Learning Attitude; B3 Learning Skills	C1 Learning Readiness
A4 Learning Will; A5 Information Technology Skills; A6 Online Learning Ability; A7 Exam Registration	B4 Personal Growth	C2 Learning Drive
A8 Ability Enhancement; A9 Knowledge Thirst; A10 Interest-Driven; A11 Industry Requirement; A12 Employer Requirement; A13 Job Promotion; A14 Career Competition	B5 Future Interest; B6 Job Prospects; B7 Career Development	
A8 Ability Enhancement; A9 Knowledge Thirst; A10 Interest-Driven; A11 Industry Requirement; A12 Employer Requirement; A13 Job Promotion; A14 Career Competition	B5 Future Interest; B6 Job Prospects; B7 Career Development	

A15 Goal Setting; A16 Plan Development; A17 Time Arrangement; A18 Psychological Adjustment; A19 Environmental Setup	B8 Planning; B9 Atmosphere Creation	C3 Learning Planning
A20 Attending Q&A Sessions; A21 In-Person Classroom Interaction; A22 Online Forum Interaction; A23 Academic Interaction; A24 Managerial Interaction; A25 Emotional Interaction	B10 Interaction Methods; B11 Interaction Topics	C4 Learning Interaction
A26 Platform Login Frequency; A27 Online Learning Duration; A28 Activity Participation Frequency; A29 Identity Recognition	B12 Time Investment; B13 Emotional Investment	C5 Learning Engagement
A30 Self-Efficacy; A31 Learning Emotions; A32 Rote Memorisation; A33 Review Materials; A34 Highlight Notes; A35 Deep Understanding; A36 Practical Application	B14 Practice Strategy; B15 Understanding and Expansion	C6 Strategy Application
A37 Peer Collaboration; A38 Peer Evaluation; A39 Self-Reflection; A40 Self-Assessment	B16 Collaborative Learning; B17 Reflection and Evaluation	
A41 Course Completion; A42 Online Assignment Completion; A43 Online Quiz Completion; A44 Assignment Quality; A45 Posting/Reply Quality	B18 Task Completion Quantity; B19 Task Completion Quality	C7 Task Completion
A46 Course Learning Quality; A47 Knowledge Acquisition; A48 Knowledge Application; A49 Job Skills Improvement; A50 Learning Ability Cultivation; A51 Job Promotion; A52 Salary Increase	B20 Knowledge Accumulation; B21 Skills Enhancement; B22 Career Development	C8 Learning Outcome
A37 Peer Collaboration; A38 Peer Evaluation; A39 Self-Reflection; A40 Self-Assessment	B16 Collaborative Learning; B17 Reflection and Evaluation	
A41 Course Completion; A42 Online Assignment Completion; A43 Online Quiz Completion; A44 Assignment Quality; A45 Posting/Reply Quality	B18 Task Completion Quantity; B19 Task Completion Quality	C7 Task Completion
A46 Course Learning Quality; A47 Knowledge Acquisition; A48 Knowledge Application; A49 Job Skills Improvement; A50 Learning Ability Cultivation; A51 Job Promotion; A52 Salary Increase	B20 Knowledge Accumulation; B21 Skills Enhancement; B22 Career Development	C8 Learning Outcome

Selective Coding Categories

C1 Learning Readiness	C3 Learning Planning	C5 Learning Engagement	C7 Task Completion
C2 Learning Drive	C4 Learning Interaction	C6 Strategy Application	C8 Learning Outcome

Learning Planning Analysis

Table 4-16: Plan setting (M=3.83, 70.79%); time management (M=3.88, 72.04%). Learners set macro-goals (e.g., degrees), prefer quiet evenings.

Cluster (SPSS 23.0): Plan settinghigh (M=4.83, 14.13%), medium (M=3.88, 64.13%), low (M=3.03, 21.73%; Table 4-17). Atmospherehigh (14.13%), medium (68.94%, n=961), low (M=3.01, 16.93%, n=236; Table 4-18).

Table 2
Descriptive Analysis of Learning Planning

Learning Planning	Sample Size	Min	Max	Mean	Agreement %
Planning Setting	1394	1.00	5.00	3.83	70.79%
Time Management	1394	1.00	5.00	3.88	72.04%

Table 3
Cluster Analysis of Plan Setting

Group	Cluster Range	Cluster Center	Frequency	%
High	[4.50, 5.00]	4.83	197	14.13%
Medium	[3.50, 4.25]	3.88	894	64.13%
Low	[1.75, 3.25]	3.03	303	21.73%

Table 4
Cluster Analysis of Atmosphere Creation

Group	Cluster Range	Cluster Center	Frequency	%
High	[4.50, 5.00]	4.83	197	14.13%
Medium	[3.50, 4.25]	~3.88	961	68.94%
Low	[1.50, 3.25]	3.01	236	16.93%

Discussion

The moderate overall quality of online learning among working adults (M=3.15/5.0) underscores a familiar tension in the field: while institutional quality assurance frameworks like those from Phipps and Merisotis (2000) and Lam and McNaught (2007) emphasize provider-side elements such as course structure, faculty support, and evaluation, this study reveals persistent learner-side gaps that SRL theory (Zimmerman, 1989) illuminates effectively. Strengths in learning drive (M=3.45) and strategy application (M=3.40) align with Zimmerman's performance phase, where self-regulated adults leverage intrinsic motivationcareer aspirations, job promotion needsand behavioral tactics like note-highlighting or practical application to navigate online constraints. These findings extend prior models (e.g., Sloan pillars, ELQ, MEST) by centering learner agency, showing how working adults proactively compensate for structural deficits, yet cluster analysis of planning (70%+ agreement but 22% low performers) highlights variability driven by work-life demands, echoing Deng et al.'s (2016) correlations between SRL processes and outcomes.

Notably, deficits in interaction (M=2.85) and planning (M=2.90) expose underexplored vulnerabilities for this demographic, diverging from provider-dominant literature that prioritizes institutional commitment and technical infrastructure (Frydenberg, 2002; Stojan et al., 2022). Grounded theory's eight-dimension modelreadiness, drive, planning, interaction, engagement, strategies, task completion, and gainmaps directly onto SRL's cyclic phases: preparatory planning (e.g., goal-setting, time arrangement) shows high means (3.83-3.88) but uneven clusters (14% high, 65% medium, 22% low), signaling that while many adults create quiet evening atmospheres for macro-goals like diplomas, a substantial minority struggles

with psychological adjustment and environmental setup amid professional pressures. Interaction shortfalls, encompassing forums, Q&A, and emotional exchanges, mirror Jeri's (2023) critique of neglected "teaching-learning" dynamics, yet the model reframes these as learner-initiated behaviors (help-seeking, peer collaboration), bridging silos between institutional standards and metacognitive processes.

This learner-centered framework advances theoretical discourse by unifying fragmented quality models with SRL's metacognitive-motivational-behavioral core, explaining why motivation endures despite interaction gaps and validating career-oriented gains (knowledge application, skills enhancement, promotions) as key outcomes for adult learners. Practically, the findings advocate targeted interventions: platforms could embed SRL scaffolds like AI goal trackers and reflection prompts to uplift the 22% low-planning cluster, while institutions enhance peer mentoring and forums to boost interaction, aligning with Lam and McNaught's (2007) emphasis on communication. In contexts like India's burgeoning online higher education sector, these insights inform retention policies, fostering employability through dimensional benchmarks.

Conclusion

This study reveals moderate quality in online learning among working adults (M=3.15/5.0), with pronounced strengths in learning motivation (M=3.45) and strategy application (M=3.40), yet critical weaknesses in learning interaction (M=2.85) and planning (M=2.90). These patterns echo literature gaps where provider-focused frameworks (Phipps & Merisotis, 2000; IHEP benchmarks) dominate, while learner-centered dimensionsvital for time-constrained adultsremain underexplored.

The eight-dimension model (readiness, drive, planning, interaction, engagement, strategies, tcompletion, gain), derived from grounded theory and NVivo visualization, aligns seamlessly with Zimmerman's SRL phases: planning strengths (70.79-72.04% agreement) reflect preparatory goal-setting and environment creation, yet cluster variability (21.73-22% low performers) signals equity issues. Interaction deficits underscore neglected "teaching-learning" interactions noted across standards (Jeri, 2023), while career-oriented outcomes (knowledge application, job promotion) validate adult learner priorities.

Theoretical implications bridge silosunifying institutional guidelines (Sloan pillars, ELQ, MEST) with SRL's metacognitive-behavioral cycle. This framework advances quality assurance by positioning learners as active agents, explaining why motivation persists despite structural gaps.

Practical implications guide stakeholders: Institutions should integrate SRL scaffolds (e.g., AI-driven goal trackers, automated reflection prompts) into platforms, enhancing planning for the 65% medium cluster and rescuing 22% low performers. Enhanced forums and peer mentoring can boost interaction from 2.85, mirroring Lam & McNaught's (2007) communication emphasis. For working adults, targeted training in time management and help-seeking aligns with observed macro-goals (diplomas, promotions). Policymakers in growing markets like India can leverage these for retention policies, measuring success via dimensional benchmarks.

Limitations and future research include self-reported data biases and China-centric sampling; cross-cultural validation (e.g., India, USA) would strengthen generalizability. Longitudinal studies tracking dimension changes pre/post-intervention, plus experimental SRL platform designs, could test causality. Exploring demographic moderators (age, work hours) via AMOS structural modeling would refine predictions.

Ultimately, this work reframes online learning quality as a dynamic interplay of provider supports and self-regulation, empowering working adults toward sustainable outcomesskills enhancement, career advancement, and lifelong learning in an increasingly digital workforce.

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