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Empowering Learners: The Role of Student-Centered Learning in Fostering Life Skills Development within Saudi Higher Education

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تمكين المتعلمين: دور التعلّم القائم على الطالب في تنمية المهارات الحياتية في مؤسسات التعليم العالي السعودية

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Abstract:

This study investigates the implementation of student-centered learning (SCL) in Saudi higher education and its role in fostering essential life skills among undergraduate students. Drawing on semi-structured interviews with 12 faculty members, 15 students, and 7 student affairs staff, the research examines experiences, challenges, and strategies for sustainable SCL adoption. Findings reveal that SCL enhances student engagement and cultivates critical life skills, including leadership, communication, and time management. However, systemic challenges—such as faculty workload, student resistance, and institutional constraints—impede consistent implementation. The study underscores the necessity of interdisciplinary collaboration between academic departments and student affairs to effectively integrate life skills development into the curriculum. The research advocates for comprehensive faculty training, institutional policy reforms, and innovative assessment methodologies. This study offers valuable insights and practical recommendations aligned with Saudi Arabia's Vision 2030 objectives for a knowledge-based economy.

Keywords: Student-Centered Learning, Life Skills Development, Higher Education, Saudi Arabia, Vision 2030, Educational Reform.

الملخص:

تتناول هذه الدراسة تطبيق التعلّم القائم على الطالب في مؤسسات التعليم العالي السعودية، ودوره في تنمية المهارات الحياتية لدى طلاب المرحلة الجامعية. استندت الدراسة إلى مقابلات شبه منظمة مع 12 عضو هيئة تدريس، و15 طالبًا جامعيًا، و7 من مسؤولي شؤون الطلاب، لاستكشاف تجاربهم، والتحديات التي تواجه هذا النهج، والسبل الكفيلة بضمان استدامته. وتبين من النتائج أن التعلّم القائم على الطالب يعزز تفاعل الطلاب، ويطور مهارات جوهرية مثل القيادة، والتواصل، وإدارة الوقت. غير أن تطبيقه يواجه عقبات، من بينها الأعباء التدريسية المتزايدة، ومقاومة بعض الطلاب، والقيود المؤسسية. وتبرز الدراسة أهمية التنسيق بين الأقسام الأكاديمية وشؤون الطلاب لضمان إدماج المهارات الحياتية في المناهج بفاعلية. تقدّم هذه الدراسة رؤىً قيّمة وتوصياتٍ عملية متسقةً مع مستهدفات «رؤية المملكة العربية السعودية 2030» لبناء اقتصادٍ قائمٍ على المعرفة.

الكلمات المفتاحية: التعلّم القائم على الطالب، تنمية المهارات الحياتية، التعليم العالي، السعودية، رؤية 2030، إصلاح التعليم.

Introduction

In contemporary higher education, student-centered learning (SCL) has become a critical pedagogical approach, emphasizing active student engagement, autonomy, and the co-construction of knowledge (Biggs & Tang, 2011; Weimer, 2013). This shift responds directly to global demands for graduates equipped not only with academic knowledge but also with essential life skills—including communication, teamwork, leadership, and adaptability—that enable success in complex and dynamic work environments (UNESCO, 2020).

In Saudi Arabia, the adoption of SCL has gained particular urgency within the framework of Vision 2030, which aims to modernize education, diversify the economy, and develop human capital for a knowledge-based society (Ministry of Education, 2019). This transformation requires institutions to move beyond traditional lecture-based models and integrate pedagogies that foster both cognitive and non-cognitive competencies.

Despite growing institutional interest, the transition to sustainable SCL practices remains challenging. Faculty often face workload pressures and institutional constraints (Cilliers et al., 2010), while students encounter difficulties in adapting to self-directed learning formats (Akyol & Garrison, 2011). These challenges are further shaped by cultural norms and long-standing educational traditions within the Saudi context.

Research Problem and Gap

While prior studies advocate the integration of SCL and life skills, there remains limited empirical understanding of how these approaches are implemented in practice within Saudi universities. In particular, few studies have examined how academic and co-curricular programs collaborate to align learning outcomes and prepare students for workforce demands (Alsubaie & Jones, 2017). Addressing this gap is vital to advancing institutional strategies capable of closing the divide between formal education and real-world skill acquisition.

Research Questions and Objectives

This study investigates the experiences of faculty, undergraduate students, and student affairs staff regarding the adoption of SCL and its role in life skills development. The key research questions are:

1. How do undergraduate students experience student-centered teaching approaches?
2. What specific life skills are fostered through SCL practices?
3. What challenges do faculty face in implementing SCL?
4. What institutional strategies support sustainable SCL adoption?

The study aims to (a) identify the challenges and opportunities in implementing SCL, and (b) propose institutional strategies that promote effective integration of life skills development into academic programs.

Significance of the Study

This research provides insights into how Saudi higher education institutions, under Vision 2030, are adapting teaching practices to meet national economic and social development goals. By focusing on multiple stakeholder perspectives—faculty, students, and student affairs staff—the study offers a comprehensive view of both the practical challenges and potential pathways for institutional reform. The findings contribute to broader international discussions on preparing graduates for 21st-century labor markets through integrated academic and life skills education.

What distinguishes this study is its contextual and thematic focus. Unlike prior research that examines SCL primarily through pedagogical or cognitive lenses, this investigation explores the intersection of student-centered teaching and life-skills development in the context of Saudi Arabia's Vision 2030 transformation. By incorporating the

perspectives of faculty, students, and student affairs professionals, the study reveals how cross-functional institutional collaboration shapes the sustainability of SCL practices. Moreover, it extends the literature by documenting how culturally embedded attitudes toward authority, autonomy, and group dynamics influence the enactment of SCL in real-world academic settings. To our knowledge, this integrated institutional and cultural perspective remains underexplored in the existing scholarship on SCL

Literature review The Evolution of SCL: From Theory to Practice

SCL represents a profound shift in educational philosophy by empowering students to become active participants in the learning process, promoting autonomy and collaborative problem-solving. John Dewey's (1938) experiential learning emphasizes meaningful education through direct engagement with real-world experiences, integrating both intellectual and practical skills. Jean Piaget's (1970) cognitive development theory complements this by focusing on how students actively construct knowledge through interaction and developmental stages. Lev Vygotsky's (1978) Zone of Proximal Development further highlights the importance of guided learning, where collaboration with more knowledgeable peers enables progression toward independence.

Contemporary studies reinforce the value of SCL in improving learning outcomes. Freeman et al. (2019) found that active learning strategies such as problem-based learning (PBL) and flipped classrooms enhance student retention and performance. These methods foster critical thinking and problem-solving abilities, contributing to broader educational trends that emphasize cognitive and interpersonal skills essential for lifelong learning.

These findings, while compelling, do not fully address how such strategies function in non-Western, conservative educational environments such as Saudi Arabia. This study seeks to expand on existing research by exploring the adaptation of these practices within institutions undergoing systemic reform, where cultural and structural dynamics may alter their effectiveness and reception.

Fostering Autonomy: The Role of Self-Directed Learning within SCL

Self-directed learning (SDL) complements SCL by promoting autonomy, accountability, and lifelong learning habits. SDL encourages students to manage their learning process while instructors act as facilitators (Morris, 2019). Reflective journaling and peer assessments enhance metacognitive abilities (Zhu, 2021), while flipped classrooms have been shown to improve time management, self-regulation, and collaboration.

SDL is particularly relevant within Saudi Arabia's Vision 2030, which emphasizes preparing graduates for a knowledge-based economy (Ministry of Education, 2019). SDL develops competencies such as problem-solving, communication, and teamwork, aligning educational practices with national goals. Karataş et al. (2021) also emphasize that SDL nurtures resilience and adaptability, qualities increasingly valuable in dynamic professional environments. Through reflective practices, goal-setting, and collaboration, students acquire skills that extend well beyond academic performance.

While SCL serves as an overarching pedagogical framework, it encompasses several distinct yet interrelated active learning models. Clarifying these conceptual distinctions is essential for understanding the range of instructional strategies that contribute to SCL implementation. The following table summarizes the key features of each model and their relation to the broader SCL paradigm:

Table 1*: Conceptual Distinctions among Active Learning Models*

Model	Definition	Primary Mechanism	Relation to SCL Framework
SCL	Instructional approach prioritizing student agency, autonomy, and active engagement in learning.	Learner autonomy and collaboration	Overarching framework
Problem-Based Learning (PBL)	Students collaboratively solve real-world problems through guided inquiry.	Collaborative problem-solving	Subset of SCL
Flipped Classroom	Instructional content delivered outside class, with in-class time used for active learning.	Content delivery + peer interaction	Subset of SCL
Self-Directed Learning (SDL)	Students set personal learning goals, manage their progress, and reflect independently.	Metacognitive regulation	Integral component of SCL
Inquiry-Based Learning	Students generate questions, investigate solutions, and construct knowledge.	Guided inquiry and reflection	Subset of SCL

Life Skills Development Through SCL: Preparing Students for the Future

Life skills—including communication, teamwork, leadership, and adaptability—are essential for students' success both personally and professionally (UNESCO, 2020). SCL engages students in active learning environments that foster personal growth and life skill development. For example, Woods and Copur-Gencturk (2024) highlight improvements in critical thinking and problem-solving through SCL in STEM education, while Movassaghi and Growe (2019) emphasize gains in communication, creativity, and teamwork within performing arts contexts.

The integration of life skills into higher education aligns with national economic diversification efforts in Saudi Arabia (Ministry of Education, 2019) and with global priorities for sustainable development (World Economic Forum, 2020). Research by Sørensen et al. (2023) confirms that project-based learning enhances collaboration and leadership, while Freeman et al. (2019) report higher engagement and deeper learning outcomes through active learning. Although cultural and institutional challenges remain, gradual integration of SCL methods and faculty development programs can facilitate the shift toward life skills-oriented education (Alsubaie & Jones, 2017).

While these studies offer valuable insights, few have critically examined how life skills acquisition through SCL interacts with national policies like Vision 2030 in practice. By focusing on the lived experiences of faculty, students, and student affairs staff in a Saudi university, this study provides grounded evidence to evaluate the real-world feasibility and contextual alignment of such global pedagogical trends.

Barriers to Implementing SCL in Saudi Higher Education

Despite growing interest, several barriers hinder the effective adoption of SCL in Saudi higher education. Faculty resistance persists due to entrenched lecture-based traditions (Alsubaie & Jones, 2017), and hierarchical student-teacher relationships limit collaborative learning opportunities (Akyol & Garrison, 2011). Institutional constraints such as limited access to technology and large class sizes further complicate implementation (Saienko & Lavrysh, 2020), while inconsistent faculty development programs limit widespread adoption (Murtonen et al., 2024).

Students, likewise, may struggle to transition from passive to active learning, requiring targeted

support to build confidence in self-directed learning (Akyol & Garrison, 2011). Overcoming these barriers demands comprehensive institutional strategies, including workload management, professional development, scaffolded learning models, and assessment practices aligned with active learning methodologies.

Opportunities for Sustainable SCL Adoption in Saudi Universities

Despite these obstacles, Saudi universities hold considerable opportunities to advance SCL adoption in alignment with Vision 2030 goals (Ministry of Education, 2019). Faculty development programs, peer mentoring, and professional learning communities support instructional innovation (Murtonen et al., 2024). Digital platforms such as learning management systems and e-portfolios enable personalized learning and foster student autonomy (Beckers et al., 2021).

Saudi case studies demonstrate promising outcomes. Collaborative projects linking academic programs and student affairs help bridge classroom learning with practical skill development (Alsubaie & Jones, 2017). Experiential learning activities such as internships and service-learning initiatives further embed life skills into academic curricula, enhancing students' workforce readiness.

Methodology

This study employed a qualitative research design to explore the experiences and perspectives of faculty members, undergraduate students, and student affairs staff regarding the implementation of SCL and its role in life skills development. A qualitative approach was chosen due to its ability to provide rich, contextual data and deep insights into participants' experiences and perceptions (Creswell & Poth, 2018). This design aligns with the study's objectives of uncovering challenges, opportunities, and strategies associated with SCL implementation in Saudi higher education.

Context and Institutional Setting

The study was conducted at Jazan University, a public research university established in 2006 and located in the city of Jazan on Saudi Arabia's southwest coast near the Red Sea. Serving over 60,000 students across 23 faculties—including Engineering, Education, and Business—Jazan University is the sole public university in the region and a key driver of Vision 2030 educational reforms. The university's 2021–2025 strategic plan explicitly aligns with Vision 2030, emphasizing the modernization of teaching and learning practices under its Center of Excellence in Teaching and Learning. Since 2018, institutional initiatives have included faculty workshops, revised curricula, and enhanced co-curricular collaborations aimed at embedding SCL across undergraduate programs.

Participant Selection

The study included 34 participants drawn from three academic units at Jazan University. Undergraduate students (n=15) were enrolled in the College of Engineering (all-male programs), College of Business Administration (mixed-gender programs), and College of Education (mixed-gender programs). Faculty members (n=12) represented these same academic units and held varying levels of teaching experience in undergraduate education. Student Affairs staff (n=7) were engaged in life skills development programming directly aligned with institutional SCL policies. The purposive sample ensured representation across disciplines and gender configurations while reflecting the university's actual enrolment structure.

The sample size and composition were guided by purposive maximum variation sampling, which sought to capture diverse experiences across disciplines, gender arrangements, and administrative roles directly involved in SCL implementation. The numbers of participants in each group—12 faculty members, 15 undergraduate students, and 7 student affairs

staff—were determined based on reaching thematic saturation, where no new major themes were emerging from the interviews. This approach is consistent with established qualitative sampling principles (Guest et al., 2006), ensuring sufficient data depth and variation for meaningful analysis.

The undergraduate student participants (n=15) were enrolled across the Colleges of Engineering, Business Administration, and Education. In line with Jazan University's gender segregation policies, all teaching is conducted in separate physical spaces for male and female students. When male instructors deliver lectures to female students, classrooms are typically divided by transparent glass partitions that allow the instructor to see and interact visually with both sides while preserving gender separation. This arrangement enables the simultaneous delivery of academic content while respecting institutional and cultural regulations. Such configurations applied across the sampled programs in this study.

Participants were selected to ensure diversity in perspectives, academic disciplines, and experience levels. For faculty members, we sought representation from various departments and levels of teaching experience. Student participants were chosen from different years of study and academic programs. Student affairs staff were selected based on their involvement in life skills development initiatives.

Data Collection Process

Data was collected through semi-structured interviews conducted individually with each participant. This format allowed for flexibility to explore topics in-depth while ensuring the research questions were addressed consistently across interviews. Each interview lasted between 45 to 60 minutes and was conducted either in person or via video conferencing, depending on participant availability and preference.

Interview protocols were developed for each participant group, focusing on their specific roles and experiences with SCL and life skills development. Sample questions included:

For Faculty:

- How do you implement student-centered teaching practices in your courses?
- What challenges do you encounter in promoting life skills through these practices?
- How do you assess the development of life skills in your students?

For Students:

- How have student-centered activities influenced your personal and academic development?
- What challenges do you face when participating in collaborative or self-directed learning?
- Can you describe any life skills you've developed through these learning experiences?

For Student Affairs Staff:

- How do co-curricular programs complement academic learning in terms of life skills development?
- What are the challenges in aligning these programs with academic courses?
- How do you measure the effectiveness of life skills development initiatives?

All interviews were audio-recorded with participant consent and transcribed verbatim to ensure accurate analysis. Field notes were also taken during interviews to capture non-verbal cues and immediate reflections.

Data Analysis

The study employed thematic analysis to identify patterns and themes within the interview data. This method was chosen for its flexibility and ability to provide a rich, detailed, and complex account of the data (Braun & Clarke, 2006). The analysis followed six key steps:

1. Familiarization: The researchers immersed themselves in the data by reading and re-

reading the transcripts multiple times, noting initial ideas and potential codes.

2. Initial Coding: Transcripts were systematically coded to highlight statements related to student-centered teaching, life skills development, challenges, and institutional strategies. This process was conducted independently by two researchers to enhance reliability.
3. Generating Themes: Codes were grouped into potential themes that reflected broader patterns in the data. These themes were related to engagement, personal growth, institutional challenges, and collaborative opportunities.
4. Reviewing Themes: Themes were reviewed in relation to the coded extracts and the entire dataset to ensure consistency and accuracy. This step involved creating thematic maps to visualize relationships between themes.
5. Defining and Naming Themes: Clear definitions and names were developed for each theme, ensuring they captured the essence of the data they represented and aligned with the research questions.
6. Reporting: Key themes were documented, supported by vivid participant quotes to illustrate the findings. The analysis was written up to tell the complex story of the data in a way that convinces the reader of the merit and validity of the analysis.

The software NVivo was used to assist with the coding process and organize the data efficiently. This tool facilitated the management of large amounts of qualitative data and allowed for easy retrieval and comparison of coded segments across participant groups.

Findings and Analysis

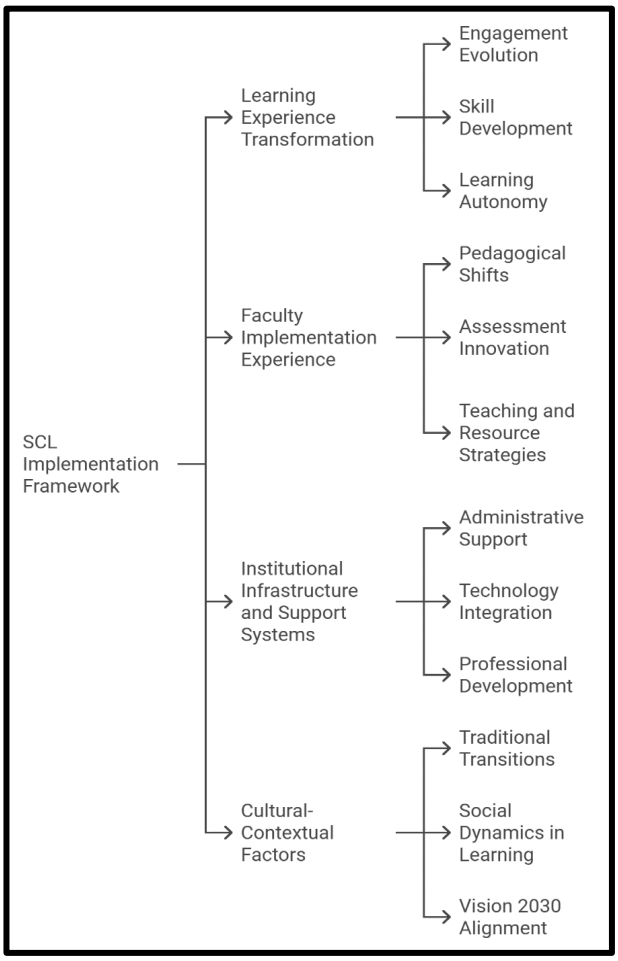
This section presents a detailed thematic analysis of the data collected from students, faculty, and student affairs staff regarding the implementation of SCL in Saudi higher education. The analysis is organized into four primary thematic clusters: Learning Experience Transformation, Faculty Implementation Experience, Institutional Infrastructure and Support Systems, and Cultural-Contextual Factors. These domains reflect the opportunities and challenges encountered during SCL adoption and provide insights into the alignment of these efforts with Vision 2030 goals.

Overview of Thematic Domains

The analysis identified four main domains that shape the implementation of SCL. These domains reflect the interplay between personal experiences, pedagogical strategies, institutional frameworks, and cultural dynamics:

1. **Learning Experience Transformation:** Captures the development of students as they evolve from passive recipients of information to active participants, acquiring critical skills and embracing learning autonomy.
2. **Faculty Implementation Experience:** Explores the shifts in pedagogical approaches, challenges encountered by instructors, and the innovative practices adopted to integrate SCL successfully.
3. **Institutional Infrastructure and Support Systems:** Focuses on the administrative, technological, and policy frameworks that facilitate or hinder SCL adoption within the university environment.
4. **Cultural-Contextual Factors:** Examines how traditional cultural norms, social dynamics, and alignment with Vision 2030 goals influence the sustainability and acceptance of SCL practices.

Figure 1:*SCL framework*



Learning Experience Transformation

This section explores how SCL reshapes students' learning experiences, focusing on three interconnected aspects: Engagement Evolution, Skill Development, and Learning Autonomy. These themes reveal how SCL fosters active participation, equips students with critical skills, and encourages self-directed learning.

Engagement Evolution: From Passive to Active Learners

SCL fosters a transition from passive to active learning, motivating students to take responsibility for their education. Several students shared how SCL has transformed their classroom engagement.

One participant (UG-04) explained, "Before SCL, I was passive in class. Now, I find myself researching topics beyond the curriculum because our discussions make me curious about real-world applications." This statement reflects the role of active learning in stimulating curiosity and driving students to engage deeply with academic material. Similarly, UG-13 described the gradual impact of SCL: "The change wasn't immediate, but after two months of project-based learning, I started seeing connections between different courses. It's like the knowledge finally became meaningful."

Additionally, UG-08, a third-year engineering student, emphasized the importance of practical applications: "Working on industry-based problems has completely changed how I approach learning. I'm not just studying for exams anymore; I'm building skills I know I'll need in my career." These reflections highlight how SCL creates meaningful connections between theory and practice, fostering both academic and professional development.

However, not all students adapted easily. UG-15 noted, "It was overwhelming at first. Everyone expected us to contribute ideas and lead discussions. Some of us needed time to build that confidence." This indicates that while SCL offers significant benefits, students may require time and support to adjust to the new participatory expectations.

Skill Development: Building Competencies Over Time

SCL enhances students' skills across multiple domains, including communication, critical thinking, collaboration, and self-direction. These competencies develop progressively, as outlined in Table 1.

Table 2*: Skill Development Progression Patterns*

Skill Category	Initial Stage	Development Stage	Mastery Stage
Communication	Hesitant participation	Active discussion	Leadership in debates
Critical Thinking	Basic analysis	Multiple perspectives	Complex problem-solving
Collaboration	Individual focus	Group participation	Team leadership

Self-Direction	Teacher dependence	Guided independence	Autonomous learning

Students shared how they experienced this skill progression. UG-09 noted, "My collaboration skills improved significantly through group projects. Initially, I found teamwork challenging, but now I feel confident leading group efforts." This demonstrates how SCL fosters leadership through collaborative learning. Similarly, UG-05 shared, "I now approach complex tasks with greater confidence, knowing I can break them down step-by-step." This quote highlights the importance of problem-solving as students become more adept at managing complex tasks independently.

Learning Autonomy: Empowering Independent Learners

SCL promotes learning autonomy by encouraging students to take responsibility for their learning journey. Table 2 illustrates the progression toward self-directed learning.

Table 3*: Learning Autonomy Development Phases*

Phase	Characteristics	Support Needs
Initial Resistance	Uncertainty about expectations	High instructor guidance
Gradual Adaptation	Growing confidence in decisions	Peer support and scaffolding
Autonomous Engagement	Independent learning initiatives	Minimal guidance

Students reflected on the challenges of embracing autonomy. UG-10 explained, "The hardest part was learning to trust my own judgment. In traditional classes, there's always a clear right or wrong answer. SCL taught me that real learning involves exploring multiple possibilities." This highlights the shift from dependence on external validation to internal motivation. UG-07 described a pivotal moment: "After successfully completing my first self-directed project, I realized I was capable of more than I thought." This demonstrates how autonomy fosters self-confidence and encourages students to set their own learning goals.

Challenges and Adaptation Strategies

Students faced various challenges during their transition to SCL but developed effective strategies to overcome them. Table 3 summarizes these strategies.

Table 4*: Student Adaptation Strategies*

Challenge Area	Student Strategy
Time Management	Creating personal schedules
Group Dynamics	Establishing communication protocols

These strategies reflect how students adapted to the demands of SCL. UG-12 noted, "Our study group created a rotation system where each week, someone would lead the discussion. It helped us develop both leadership and active listening skills." This highlights the importance of peer collaboration in managing group dynamics and fostering personal growth.

Faculty Implementation Experience

This section examines the experiences of faculty members as they transition from traditional teaching approaches to SCL methodologies. The findings are organized around three core themes: Pedagogical Shifts, Assessment Innovation, and Teaching and Resource Strategies. Faculty narratives illustrate how they adapted their practices, overcame challenges, and developed innovative strategies to engage students meaningfully.

Pedagogical Shifts: Faculty as Facilitators of Learning

A key theme that emerged from faculty interviews was the shift from being knowledge transmitters to facilitators of learning. Several participants emphasized how this transformation required significant changes in their instructional methods, lesson planning, and classroom roles.

FM-07 shared, "After 15 years of traditional teaching, changing my role was challenging. I had to learn to step back and let students struggle productively with concepts." This quote reflects the adjustment process many faculty members

experienced as they redefined their roles in the classroom. Instead of lecturing, instructors now guide students through inquiry-based activities and discussions, encouraging them to explore ideas independently.

Another instructor (FM-04) described the incremental nature of the change: "I started with small changes—incorporating 10-minute group discussions into lectures. Gradually, I built up to full problem-based learning sessions." This approach illustrates how faculty members adopted a scaffolded strategy, making gradual adjustments to help both themselves and their students acclimate to SCL practices.

Assessment Innovation: Developing Alternative Evaluation Methods

The shift to SCL required faculty to innovate assessment methods to align with active learning strategies. Traditional exams were supplemented with more continuous and formative assessments, such as group projects, presentations, and reflective journals. Table 4 outlines the variety of methods adopted by faculty to evaluate student progress effectively.

Table 5: *Faculty Strategies for Assessment Innovation*

Assessment Type	Description
Peer Assessment	Students evaluate each other's contributions
Process-Based Rubrics	Focus on learning progress and effort
Digital Portfolios	Students document learning journeys
Collaborative Projects	Assess group problem-solving skills

Faculty described how these new assessment practices encouraged students to take greater ownership of their learning. FM-02 noted, "Developing rubrics for process-based assessment was time-consuming, but it ensured that we were evaluating both effort and progress." This quote underscores the importance of designing assessments that align with SCL's focus on continuous learning and improvement.

Teaching and Resource Strategies: Overcoming Challenges

Faculty members encountered several challenges in implementing SCL, particularly in terms of workload management, large class sizes, and student resistance. However, they developed creative strategies to overcome these obstacles, as outlined in Table 5.

Table 6: *Faculty Challenges and Solutions Matrix*

Challenge Area	Nature of Challenge	Solution Approach
Time Management	Balancing content coverage with active learning	Modular course design
Large Class Sizes	Managing group work in large classes	Tiered group structure
Student Resistance	Hesitation to engage in collaborative learning	Gradual increase in student responsibility
Resource Constraints	Limited infrastructure support	Sharing materials across departments

FM-08 elaborated on their use of modular course design: "Breaking content into manageable modules allowed me to cover core concepts while giving students more flexibility." This modular approach enabled faculty to balance structured content delivery with the flexibility needed for active learning.

Another instructor (FM-03) explained how they managed group dynamics in large classes: "In my class of 120 students, I created a hierarchy of roles, with each main group having a leader who coordinated with subgroup leaders. This helped ensure everyone stayed engaged." This strategy illustrates how faculty adapted to the logistical challenges of large-class environments by delegating responsibilities.

Although SCL is often promoted as a means to reduce the long-term instructional burden on faculty, participants in this study reported a marked increase in workload during the transition to SCL. This was primarily due to the extensive effort required to redesign course content, restructure assessments, and develop collaborative group activities aligned with life-skills outcomes. FM-05 described the experience as "building an entirely new course from scratch—every activity, every rubric had to be rethought." Additionally, faculty had to navigate initial student resistance, which further demanded emotional labor and adaptive teaching strategies. These transitional challenges support earlier findings by Cilliers et al. (2010), who noted that the initial implementation phase of active learning often entails an intensive investment of time and effort before any reduction in workload can be realized.

Professional Development and Institutional Support

Faculty emphasized the importance of professional development and institutional support in the successful adoption of SCL. Table 6 provides an overview of the professional learning opportunities available to faculty.

Table 7: *Professional Development Infrastructure*

Program Type	Target Audience	Key Components
New Faculty Training	Entry-level faculty	SCL foundations
Advanced Workshops	Experienced faculty	Innovative teaching techniques
Peer Mentoring	All faculty levels	One-on-one guidance
Technology Integration Training	All academic staff	Hands-on LMS and tool training

FM-07 emphasized the importance of professional development: "The most valuable part of training was the opportunity to practice new techniques with peers before implementing them in class." This statement reflects how structured training programs build faculty confidence and competency in SCL practices.

Mentoring also played a critical role in supporting faculty. FM-12 shared, "My mentor observed my classes and provided feedback on how to improve student engagement. This was invaluable in helping me refine my teaching approach." This illustrates the importance of continuous feedback and peer support in facilitating effective teaching practices.

Resource Management and Utilization

Faculty also developed strategies to optimize resource management, ensuring that limited resources did not impede the implementation of SCL. Table 7 summarizes the approaches used by faculty to manage available resources efficiently.

Table 8: *Resource Management Strategies*

Resource Type	Utilization Strategy	Challenges Faced
Physical Spaces	Flexible classroom arrangements	Space limitations
Digital Tools	Blended learning approaches	Connectivity issues
Teaching Materials	Collaborative resource sharing	Time constraints
Teaching Assistants	Training in SCL methods	Limited staff availability

FM-09 described their use of flexible classroom arrangements: "We created a mobile classroom concept where students could easily transition between group work and individual tasks. This maximized interaction despite limited space." Similarly, FM-06 noted, "Our LMS platform allowed us to extend discussions beyond the classroom, ensuring students stayed engaged even outside class hours."

In summary, faculty members navigated the transition to SCL by redefining their roles, developing innovative assessment methods, and employing strategic resource management. Institutional support and professional development were critical in enabling faculty to overcome challenges and sustain effective SCL practices.

Institutional Infrastructure and Support Systems

This section examines the role of institutional infrastructure in supporting the implementation of SCL. It focuses on three core areas: Administrative Support, Technology Integration, and Professional Development Systems. The findings illustrate how policies, resources, and institutional frameworks influence the success and sustainability of SCL initiatives.

Administrative Support

Administrative policies and resource allocation were identified as critical enablers for successful SCL implementation. Faculty and staff emphasized the importance of aligned policies that support innovation and active learning practices. Table 8 provides an overview of administrative practices that facilitated SCL adoption.

Table 9: *Administrative Support Strategies*

Support Area	Implementation Level	Effectiveness
Policy Framework	Institution-wide	Moderate to High
Resource Allocation	Department-specific	Variable
Quality Assurance	Multi-level	High

SA-01 explained, "We developed a comprehensive policy framework aligned with Vision 2030 objectives, which includes guidelines for assessment, resource allocation, and quality assurance." This statement highlights the importance of institution-wide consistency to drive SCL adoption. However, some departments reported disparities in resource allocation. SA-04 noted, "While some departments received substantial resources for SCL implementation, others struggled with basic infrastructure needs. This created uneven implementation across the institution."

Technology Integration

Technology plays a pivotal role in enabling SCL by facilitating interactive learning and expanding access to resources. Table 9 highlights the strategies adopted by institutions to support technology-enhanced learning.

Table 10: *Technology Integration Practices*

Technology Type	Use Case	Challenges Faced
Learning Management Systems (LMS)	Extended engagement	Technical issues
Digital Collaboration Tools	Team-based projects	Connectivity limitations
Assessment Platforms	Streamlined evaluations	Initial learning curve

SA-05 noted, "Our LMS provided real-time insights into student engagement, allowing faculty to adjust activities as needed." This demonstrates the value of data-driven learning management systems in improving teaching effectiveness. FM-06 added, "Using online platforms enabled students to collaborate beyond the classroom, enhancing teamwork and communication skills."

Despite these benefits, technical challenges persisted. SA-02 mentioned, "The initial rollout of assessment platforms faced some resistance due to the learning curve. However, once faculty adapted, these tools became integral to our evaluation practices."

Professional Development Systems

Faculty and staff identified ongoing professional development as essential to sustaining SCL practices. Institutions implemented various programs to equip educators with the skills needed to innovate their teaching. Table 10 summarizes the training and mentoring initiatives provided to faculty.

Table 11: *Professional Development Programs*

Program Type	Target Audience	Key Components
SCL Foundations Workshops	New faculty	Fundamentals of active learning
Innovation Bootcamps	Experienced faculty	Advanced teaching techniques
Peer Mentoring	All faculty levels	Personalized guidance

FM-04 shared their experience with bootcamps: "Participating in advanced workshops inspired me to blend traditional teaching with more interactive elements. These sessions gave me practical tools I could use immediately." Similarly, SA-07 emphasized the importance of mentoring: "Having experienced faculty mentor new hires ensured consistent application of SCL principles across departments."

Resource Management and Allocation

Effective resource management was another critical factor in the sustainability of SCL. Institutions adopted collaborative strategies to optimize the use of physical spaces, digital tools, and human resources. Table 11 outlines key practices in resource utilization.

Table 12: *Resource Management Strategies*

Resource Type	Utilization Strategy	Challenges Faced
Physical Spaces	Flexible learning environments	Space constraints
Digital Tools	LMS and collaborative platforms	Technical support gaps
Teaching Assistants	Training in active learning methods	Limited availability

FM-09 described their use of flexible spaces: "We rearranged classrooms to support both individual work and group collaboration. This simple change had a significant impact on student interaction." Similarly, FM-06 emphasized the role of digital platforms in extending learning opportunities: "Our online tools allowed students to continue discussions beyond scheduled classes, fostering deeper engagement."

In summary, institutional infrastructure and support systems play a pivotal role in facilitating SCL implementation. Effective policies, technology integration, and resource management strategies create an environment conducive to active learning. However, disparities in resource distribution and initial resistance to technological tools pose challenges that require continuous adaptation.

Cultural-Contextual Factors

The adoption of SCL in Saudi higher education is shaped by the intersection of cultural norms, social dynamics, and the alignment with Vision 2030 objectives. This section explores the challenges and opportunities created by these cultural-contextual factors, focusing on Traditional Transitions, Social Dynamics in Learning, and Vision 2030 Alignment.

Traditional Transitions: Navigating Established Norms

Saudi higher education has historically relied on teacher-centered methods, with instructors as the primary sources of knowledge. Shifting to SCL practices required adjustments not only in teaching but also in student expectations. Many faculty members and students initially struggled with cultural expectations of hierarchical classroom relationships.

FM-07 reflected, "In the beginning, it was difficult to balance respecting cultural norms with encouraging student participation. Students were not used to voicing opinions freely." This statement highlights the tension between traditional deference to authority and the participatory nature of SCL. However, students gradually adapted to the new learning environment. UG-11 shared, "It felt strange at first, but over time, we became more comfortable contributing to discussions."

Despite initial resistance, faculty and students reported that these cultural transitions fostered **more collaborative relationships** in the classroom. As FM-02 noted, "Once students realized that their input mattered, the classroom

dynamic changed. We now have more productive discussions where everyone feels included."

Social Dynamics in Learning: Evolving Interaction Patterns

The implementation of SCL also reshaped social dynamics within learning environments, as students began to collaborate more actively. Group work and peer learning emerged as key elements in fostering teamwork and leadership skills. However, some students initially struggled with these new modes of interaction, particularly in mixed-gender settings, which challenged traditional expectations.

UG-08 explained, "At first, I wasn't comfortable working in mixed-gender groups, but with time, it became easier. We realized that focusing on the task helped us develop mutual respect." This statement reflects the gradual shift in attitudes as students adapted to more inclusive group dynamics.

Faculty members also adopted gender-sensitive strategies to facilitate collaboration. FM-04 noted, "We introduced flexible group structures to ensure students felt comfortable working together. Over time, students developed stronger communication and teamwork skills."

Table 12 an overview of how social dynamics evolved and the strategies used to promote effective group work.

Table 13: *Social Dynamics and Adaptation Strategies provides*

Social Dynamic	Challenges Faced	Adaptation Strategy
Mixed-Gender Interaction	Initial discomfort	Focus on task-based collaboration
Group Participation	Uneven involvement	Rotating leadership roles
Communication Patterns	Hesitant participation	Encouraging peer feedback

Vision 2030 Alignment: Connecting SCL with National Goals

Saudi Arabia's Vision 2030 emphasizes the need for educational reform to prepare graduates for a knowledge-based economy. The alignment of SCL with Vision 2030 was a recurring theme across interviews, with participants highlighting how active learning strategies contribute to national development goals.

SA-07 reflected, "Our curriculum now emphasizes critical thinking and problem-solving, which aligns directly with the skills needed in the workforce." This underscores the importance of curriculum redesign to meet the demands of a rapidly evolving job market. Similarly, UG-13 shared, "What we learn in class now feels relevant to real-world challenges. I know that these skills will help me in my future career."

Faculty members also emphasized the need to integrate industry partnerships into academic programs. FM-11 explained, "We are working closely with local companies to ensure that our students' skills align with workforce expectations. This connection between education and industry strengthens both learning outcomes and employability."

Cross-Cutting Cultural Patterns

The cultural transformation observed during SCL implementation extended beyond individual classrooms. Table 13 summarizes key patterns that emerged during the transition to SCL.

Table 14: *Cultural Transformation Patterns*

Aspect	Initial State	Transition Process
Classroom Hierarchy	Teacher-centered	Gradual shift to collaborative learning
Learning Responsibility	Passive reception	Active engagement
Communication Patterns	One-way instruction	Interactive dialogue

These patterns reflect the progressive adaptation of both students and faculty to the principles of SCL. The shift from hierarchical teaching models to collaborative learning environments illustrates the

broader cultural change taking place within Saudi higher education.

Final Thoughts of the findings

The findings of this study offer a comprehensive understanding of the complexities involved in implementing SCL within the Saudi higher education context. The thematic analysis highlights the interplay between pedagogical shifts, institutional support, cultural adaptations, and national development goals. While SCL presents challenges, including resistance to change and uneven resource allocation, the transition also unlocks significant opportunities for enhancing educational outcomes and preparing students for the demands of a knowledge-based economy.

educational frameworks.

Discussion

This discussion section critically analyzes the findings of the study, focusing on the implications of SCL in fostering life skills development in Saudi higher education. By interpreting the key themes of learning transformation, pedagogical shifts, institutional support, and cultural adaptation, this section explores how the study answers the research questions and contributes to both theory and practice. The discussion engages with established frameworks, such as Dewey's experiential learning and Vygotsky's zone of proximal development, to contextualize the findings and highlight their alignment with Vision 2030 goals.

The findings suggest that SCL significantly reshapes students' educational experiences, promotes essential life skills, and provides innovative pathways for faculty to adopt active learning strategies. However, institutional challenges and cultural dynamics shape both the opportunities and limitations of implementing SCL effectively. The following sections systematically address the research questions and situate the findings within relevant academic literature.

Addressing the Research Questions through Key Themes

Student Experiences with SCL

The transition from passive learning to active participation was a defining feature of students' experiences with SCL, encapsulated by the theme of Engagement Evolution. Students described a progressive shift in their approach to learning, where they moved from passive absorption of knowledge to actively engaging with course materials, collaborating in group projects, and applying concepts to real-world scenarios. This transformation aligns with Dewey's (1938) concept of experiential learning, which emphasizes active participation and reflection as key to meaningful learning experiences.

However, this transition was not immediate. Many students initially struggled to adjust to the expectations of self-directed learning, requiring time to build confidence and develop participation strategies. The phased progression from guided learning to autonomous engagement reflects Vygotsky's (1978) theory of the zone of proximal development (ZPD), where scaffolded support enables learners to achieve higher levels of competence.

The findings also highlight that SCL fosters intrinsic motivation. Through activities such as problem-based learning (PBL) and flipped classrooms, students developed curiosity beyond the curriculum and connected theoretical knowledge with practical applications. This engagement not only enriched their learning experience but also increased their sense of responsibility for their educational progress.

Life Skills Development through Student-Centered Practices

The study revealed that SCL promotes the development of communication, collaboration, critical thinking, and self-management—skills essential for both academic and professional success. As students engaged in group discussions

and collaborative projects, they honed their interpersonal skills, learned to lead teams, and practiced effective communication. These competencies progressed systematically, reflecting patterns of increasing proficiency over time, as documented in the Skill Development Progression Patterns theme.

Among the most effective active learning models, the flipped classroom provides students with opportunities to engage with content independently outside of class while utilizing class time for interactive problem-solving, peer instruction, and skill development. Bergmann and Sams (2012), pioneers of the flipped classroom model, demonstrated how this approach enhances student engagement, fosters time management, and promotes self-directed learning capacities—skills that are especially aligned with Vision 2030's focus on graduate readiness for complex work environments.

In the context of Vision 2030, these life skills align with national priorities for a knowledge-based economy, where graduates must possess problem-solving abilities and adaptability. As students reported increased readiness for internships and professional roles, it became evident that SCL equips them with practical competencies relevant to the job market.

Challenges Faced by Faculty in Implementing SCL

Faculty encountered several challenges in adopting student-centered approaches, including increased workload, student resistance, and resource limitations. The transition from traditional lecture-based teaching to facilitative roles demanded significant shifts in pedagogy, requiring faculty to redesign curricula, develop alternative assessments, and manage classroom dynamics. These challenges align with findings by Cilliers et al. (2010), who highlight that active learning requires both time and institutional support for effective implementation.

Faculty reported difficulties in balancing content delivery with active learning strategies, particularly in large classes. The shift to interactive teaching methods, such as PBL and flipped classrooms, required new competencies in managing group activities and assessing individual contributions. However, incremental changes, such as integrating short group discussions into lectures, enabled faculty to gradually adapt their teaching practices. This approach reflects scaffolded implementation, where small changes are introduced progressively to build capacity for more comprehensive adoption of SCL practices.

Assessment posed another significant challenge. Traditional exams were insufficient to capture the complexity of student learning outcomes, prompting faculty to develop process-based rubrics and peer evaluation methods. This innovation aligns with research emphasizing the need for formative assessments that promote continuous learning (Murtonen et al., 2024). Despite the time-intensive nature of these assessments, they fostered deeper engagement and provided students with meaningful feedback on their progress.

Institutional Strategies for Sustainable SCL Adoption

The study identified several institutional strategies essential for the sustainable implementation of SCL, including faculty development programs, digital infrastructure, and policy reforms. Professional development emerged as a critical enabler, with structured workshops and peer mentoring programs providing faculty with the skills and confidence needed to implement student-centered teaching. These findings are consistent with Murtonen et al. (2024), who emphasize the importance of continuous professional learning in promoting innovative pedagogy.

Institutions also integrated digital tools to enhance student engagement and streamline assessments. Learning management systems (LMS) and collaborative platforms allowed for blended

learning environments, enabling students to engage with course content both inside and outside the classroom. However, resource constraints and disparities in departmental support posed challenges, highlighting the need for equitable resource distribution to ensure consistent implementation across programs.

The alignment of SCL with Vision 2030 goals emerged as a pivotal factor in driving institutional transformation. Faculty and administrators emphasized the importance of industry partnerships in ensuring that academic programs are relevant to workforce needs. Collaborative efforts between academic departments and student affairs programs further promoted holistic education, bridging the gap between classroom learning and practical skill development. These strategies echo Alsubie and Jones's (2017) call for integrating life skills development into academic curricula to enhance graduate employability.

The findings of this study demonstrate that SCL plays a transformative role in reshaping learning experiences, fostering essential life skills, and aligning educational practices with national development goals. Students experience a shift from passive to active learning, developing competencies that prepare them for the demands of the modern workforce. Faculty, though facing challenges in adopting new teaching methods, benefit from institutional support and professional development opportunities that enable the gradual implementation of SCL strategies.

These findings contribute to the growing body of literature on SCL in non-Western contexts, highlighting the importance of cultural sensitivity and institutional alignment in promoting sustainable educational practices. The next section will critically engage with the literature to explore how the study's findings align with or challenge existing research, providing deeper insights into the theoretical and practical implications of SCL in Saudi higher education.

Critical Engagement with Findings and Existing Literature

This study's findings reveal the transformative potential of SCL in fostering life skills development, reshaping educational practices, and aligning with national development goals under Saudi Arabia's Vision 2030. The discussion critically situates these findings within established educational frameworks, including Dewey's experiential learning and Vygotsky's zone of proximal development (ZPD), while engaging with relevant empirical research. While the results align with global literature on SCL, they also highlight the challenges of implementing these practices in a non-Western, traditionally hierarchical educational context, requiring careful institutional and cultural adaptation.

Alignment with Theoretical Perspectives

The transition observed in students from passive learning to active participation aligns strongly with Dewey's (1938) experiential learning, which emphasizes that meaningful learning emerges through practical engagement and reflection. The theme of Engagement Evolution shows that students, initially reluctant, began to participate more actively as they encountered real-world applications in problem-based and project-based learning. This evolution reinforces the principle that students become motivated when their learning connects with practical, relevant challenges beyond the classroom.

The findings also validate Vygotsky's (1978) theory of the Zone of Proximal Development (ZPD), where scaffolded learning helps students transition from dependency to autonomy. Faculty participants described how students required structured guidance at the beginning of their SCL journey but gradually developed the confidence to engage independently. The phased progression identified in this study mirrors Vygotsky's concept, suggesting that effective faculty facilitation enables students to navigate the shift toward self-directed

learning (SDL). This aligns with Morris's (2019) assertion that SDL fosters lifelong learning by promoting students' ownership of their educational journeys.

Comparisons with Empirical Research

The findings resonate with existing research by Freeman et al. (2019), who emphasize that SCL improves student motivation, engagement, and retention. However, this study extends their insights by demonstrating that while active learning can be universally beneficial, cultural context influences the pace of adoption. In contrast to Western studies, where students may adapt quickly to active learning environments, Saudi students initially experienced discomfort due to deeply rooted expectations of hierarchical, teacher-centered classrooms.

The challenges reported by faculty further align with Alsubaie and Jones's (2017) findings on faculty resistance to SCL. Faculty participants in this study highlighted difficulties in balancing content delivery with the demands of interactive teaching, as well as the complexities of assessing individual contributions in group work. This study adds nuance to Alsubaie and Jones's work by revealing that incremental change strategies—such as introducing brief group discussions—can gradually prepare both instructors and students for a full transition to SCL.

Furthermore, the technological integration strategies described in this research complement Saienko and Lavrysh's (2020) work, which emphasizes the role of digital infrastructure in enabling active learning. Faculty participants noted that while digital platforms extended engagement and allowed for continuous learning, cultural factors limited the effectiveness of purely online models. Hybrid approaches that blended technology with face-to-face interaction proved most effective, underscoring the importance of adapting digital tools to local cultural expectations.

Challenges and Opportunities for SCL in the Saudi Context

The study also offers new insights by challenging certain assumptions about student readiness for SCL. While Akyol and Garrison (2011) suggest that structured guidance can ease students into self-directed learning, participants in this study reported persistent resistance to SCL among some students. This highlights the need for culturally sensitive pedagogical models that account for students' prior educational experiences and expectations. For example, faculty noted that students accustomed to traditional, exam-focused instruction initially struggled with the open-ended nature of SCL, requiring time and additional support to build confidence.

The findings also emphasize the importance of faculty development and institutional support. Consistent with Murtonen et al. (2024), faculty participants in this study stressed the value of ongoing professional development, collaborative planning, and mentoring programs. However, disparities in resource allocation across departments posed challenges, indicating the need for equitable distribution of resources and support. Without consistent institutional backing, the burden of implementing SCL falls disproportionately on individual instructors, potentially hindering its sustainability.

Moreover, the alignment of SCL with Vision 2030 objectives reinforces the relevance of life skills development in preparing students for a knowledge-based economy. The development of competencies such as critical thinking, teamwork, and communication directly supports national goals for workforce readiness and employability. Faculty and administrators emphasized that partnerships with local industries provided students with valuable opportunities to apply their skills in professional contexts, bridging the gap between academic learning and real-world demands.

The Role of Institutional and Cultural Adaptation

The cultural dimension of this study adds a critical layer to the discussion of SCL implementation. Participants described the gradual shift from hierarchical classroom dynamics to more collaborative learning environments, where students began to take ownership of their learning processes. This transition reflects not only pedagogical change but also a broader cultural transformation, aligning with Hofstede's (2001) cultural dimensions theory, which highlights the challenge of reducing power distance in educational settings.

The findings demonstrate that adaptive teaching strategies—such as flexible group structures and gender-sensitive collaboration models—can facilitate this cultural shift. Faculty reported that rotating leadership roles in group work helped students develop both leadership skills and mutual respect, particularly in mixed-gender settings where traditional norms initially posed barriers to collaboration. These adaptations align with Karataş et al.'s (2021) research on the importance of tailoring educational practices to local cultural contexts to ensure meaningful student engagement.

Implications for Policy and Practice

The study's findings highlight several practical implications for educational policy and practice. First, the integration of life skills development into academic curricula is essential for aligning higher education practices with Vision 2030 goals. Universities should prioritize cross-departmental collaboration between academic units and student affairs programs to create holistic learning environments that foster both cognitive and interpersonal competencies.

Second, faculty development programs must be expanded and institutionalized to ensure that instructors receive adequate training and support for implementing SCL. Structured workshops, peer mentoring, and learning communities can help faculty navigate the challenges of transitioning to student-centered teaching. Additionally, digital infrastructure and blended learning models should be further developed to enhance accessibility and engagement, particularly in large-class environments.

Finally, the study underscores the need for policy reforms that incentivize innovation in teaching and reward faculty for adopting active learning strategies. Performance recognition systems that align with SCL goals can motivate instructors to experiment with new pedagogical approaches, while resource optimization strategies can ensure that all departments have the tools and support necessary to implement SCL effectively.

While this study provides important insights into the implementation of student-centered learning (SCL) at Jazan University, caution is warranted in generalizing these findings across all Saudi higher education institutions. Saudi universities vary significantly in size, mission, resources, and governance models, ranging from large metropolitan research universities to smaller regional or private colleges. Urban-rural divides, institutional autonomy levels, and funding structures all influence the pace and nature of SCL adoption. Therefore, while the patterns observed here offer valuable lessons, further research across diverse institutional settings is necessary to validate and refine these conclusions.

Conclusion

This investigation provides comprehensive insights into the implementation of SCL in Saudi higher education, examining its role in fostering educational transformation and life skills development. Through systematic analysis of empirical data from faculty members, students, and student affairs staff, this study illuminates the complex dynamics of implementing innovative pedagogical approaches within traditionally teacher-centered contexts while addressing the objectives of Vision 2030.

The research findings reveal multiple interconnected dimensions of successful SCL implementation. First, the pedagogical transformation demonstrates a clear progression pattern where both faculty and students undergo significant adaptations in their teaching and learning approaches. Faculty members evolved from traditional instructional roles to become learning facilitators, while students developed from passive recipients to active participants in their educational journey. This transformation, while challenging, resulted in enhanced student engagement, improved critical thinking capabilities, and stronger self-directed learning competencies.

Second, the institutional dimension emerged as crucial for sustainable implementation. The study identified key institutional mechanisms that support successful SCL adoption, including structured faculty development programs, innovative assessment frameworks, and integrated technological infrastructure. These mechanisms proved most effective when aligned with institutional policies and supported by adequate resource allocation. The findings particularly emphasize the importance of systematic professional development and ongoing support for faculty members transitioning to student-centered approaches.

Third, the cultural dimension emerged as a critical mediating factor in SCL implementation. The study reveals that successful adaptation requires careful consideration of cultural values and traditional educational norms. Rather than wholesale adoption of Western educational models, effective implementation involves thoughtful adaptation of SCL principles to align with Saudi cultural contexts. This cultural sensitivity in implementation strategies facilitated greater acceptance and more sustainable adoption of student-centered approaches.

Fourth, the technological dimension demonstrated both enabling and challenging aspects. While technology served as a crucial enabler for SCL implementation, particularly in facilitating blended learning approaches and supporting larger class sizes, it also presented challenges related to infrastructure requirements and digital literacy needs. The findings suggest that successful technology integration requires careful consideration of both technical and pedagogical factors.

The study's findings have significant implications for educational policy and practice. At the policy level, they suggest the need for comprehensive frameworks that support SCL implementation while respecting cultural values. At the institutional level, they indicate the importance of developing robust support systems for both faculty and students. At the pedagogical level, they demonstrate the need for flexible and culturally sensitive approaches to teaching and assessment.

The research makes several notable contributions to educational scholarship. It extends theoretical understanding of how innovative pedagogical approaches can be successfully implemented in traditional educational contexts. It provides empirical evidence of the processes through which cultural adaptation of educational innovation occurs. Additionally, it offers practical insights into the mechanisms that support sustainable pedagogical transformation.

Looking forward, several areas warrant further investigation. Future research should examine the long-term impact of SCL on graduate outcomes and professional success. Comparative studies across different institutional contexts could provide broader insights into implementation strategies. Additionally, investigation of emerging technologies' role in supporting SCL could inform future development of educational infrastructure.

Despite these areas for future research, this study provides valuable guidance for educational institutions seeking to implement student-centered approaches while maintaining cultural integrity. The findings demonstrate that successful educational transformation requires careful attention to multiple dimensions: pedagogical innovation, cultural sensitivity, institutional support, and technological integration. This multidimensional approach, when properly implemented, can support the development of graduates who possess both strong academic foundations and the practical skills needed for success in a rapidly evolving global economy.

This research thus contributes significantly to both theoretical understanding and practical implementation of educational innovation in culturally traditional contexts. It provides a foundation for institutions seeking to balance pedagogical advancement with cultural values while pursuing national development objectives such as Vision 2030. The evidence presented suggests that successful implementation of SCL is achievable through systematic, culturally sensitive approaches that honor traditional values while fostering the development of contemporary competencies necessary for future success.

Identifying Research Gaps and Future Directions

While research on SCL and life skills development has grown, several areas remain underexplored, particularly within the Saudi context. One critical gap is the long-term impact of SCL on graduate employability and professional success. Although studies highlight the short-term benefits of SCL in developing critical thinking and collaboration skills, more research is needed to understand how these competencies translate into sustained career achievements. Another research gap lies in identifying scalable models for SCL in large-class environments, which are common in Saudi universities. While SCL practices thrive in smaller, interactive settings, innovative strategies are required to implement these methods effectively in larger classrooms without compromising educational quality. Furthermore, cultural adaptation warrants deeper investigation, as nuanced cultural norms influence both faculty and student attitudes toward active learning. Finally, interdisciplinary research exploring the integration of co-curricular programs with academic curricula offers promising directions for future study.

Author Contributions & AI Use

All content, analysis, and interpretation presented in this manuscript were entirely conceived, conducted, and written by the author. Language editing assistance was provided through AI-based tools functioning solely under author supervision to improve clarity and coherence. The use of AI complied fully with ethical guidelines for responsible AI use in academic publishing as outlined by Purdue University.

References

Akyol, Z., & Garrison, D. R. (2011). Understanding cognitive presence in an online and blended community of inquiry: Assessing outcomes and processes for deep approaches to learning. *British Journal of Educational Technology, 42*(2), 233-250.

Alsubaie, M. A., & Jones, K. (2017). An overview of the current state of women's leadership in higher education in Saudi Arabia and a proposal for future research directions. *Administrative Sciences, 7*(4), 36. DOI: https://doi.org/10.3390/admsci7040036

Beckers, J., Dolmans, D., & van Merriënboer, J. (2021). Student, direct thyself! Facilitating self-directed learning skills and motivation with an electronic development portfolio. *Journal of Research on Technology in Education, 53*(4), 327-341.

Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International Society for Technology in Education.

Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university* (4th ed.). Open University Press.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3(*2), 77-101.

Chatwattana, P. (2022). Learning in the world of new normal on virtual world under virtual learning environment. *RMUTSB Academic Journal (Humanities and Social Sciences), 7*(2), 261-273.

Cilliers, F. J., Schuwirth, L. W., & Van der Vleuten, C. P. (2010). The mechanism of impact of summative assessment on medical students' learning. *Advances in Health Sciences Education, 15*(5), 695-715.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.

Dewey, J. (1938). *Experience and education.* Kappa Delta Pi.

Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2019). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences, 116*(19), 9505-9514. DOI: https://doi.org/10.1073/pnas.1821936116

George, S. S., & Valsalan, C. (2022). Students perception on modern teaching pedagogy "Project based learning method on self-directed learning skills" among undergraduate nursing students. *International Journal of Research Analysis, 8*(2), 45-52.

Glavind, J. G., de Oca, L. M., Pechmann, P., Sejersen, D. B., & Iskov, T. (2023). Student-centred learning and teaching: A systematic mapping review of empirical research. *Journal of Further and Higher Education, 47*(7), 1-15.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59-82.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Sage Publications.

Hoidn, S., & Reusser, K. (2020). Foundations of student-centered learning and teaching. *Educational Studies, 46*(6), 1-19.

Karataş, K., Arpaci, I., & Kılıç, M. (2021). The role of self-directed learning, metacognition, and 21st-century skills predicting the readiness for online learning. *Contemporary Educational Technology, 13*(3), 300-314. DOI: https://doi.org/10.30935/cedtech/10644

Marra, R., Hacker, D. J., & Plumb, C. (2021). Metacognition and the development of self-directed learning in a problem-based engineering curriculum. *Journal of Engineering Education, 11*0(4), 89-102.

Ministry of Education. (2019). *Vision 2030 and the transformation of education in Saudi Arabia.* Ministry of Education, Saudi Arabia. Vision 2030

Morris, T. (2019). The evolution of self-directed learning in modern education. *Journal of Educational Pedagogy, 45*(2), 223-240.

Morris, T. H., Bremner, N., & Sakata, N. (2023). Self-directed learning and student-centred learning: a conceptual comparison. *Pedagogy, Culture & Society, 33*(3), 847–866.

Movassaghi, K. S., & Growe, R. (2019). Developing 21st-century learning skills through theatre arts: A student-directed production. *Journal of Education & Social Policy, 6*(3), 45-52.

Murtonen, M., Aldahdouh, T., Vilppu, H., Trang, N. T. T., Riekkinen, J., & Vermunt, J. (2024). Importance of regulation and the quality of teacher learning in student-centred teaching. *Teacher Development, 28*(1), 23-41.

Nanney, B. (2020). Student-centered learning. In M. D. Coates, R. A. Rhoades, & J. C. Smart (Eds.), *The SAGE encyclopedia of higher education* (pp. 1459–1461). SAGE.

Patphol, M., Saengloetuthai, J., & Intalapaporn, C. (2023). A learning management model to enhance creative self-directed learning skills in Thailand. *The International Journal of Pedagogy and Curriculum, 31*(1), 1-19.

Piaget, J. (1970). *Science of education and the psychology of the child.* Orion Press.

Saienko, N., & Lavrysh, Y. (2020). Mobile assisted learning for self-directed learning development at technical university: SWOT analysis. *Universal Journal of Educational Research, 8*(4), 1466-1474.

Sørensen, A., Lagestad, P., & Mikalsen, H. (2023). Student teacher experiences of learning and pedagogical involvement using a student-centered learning approach. *Education Sciences, 13*(9), 965. DOI: https://doi.org/10.3390/educsci13090965

UNESCO. (2020). *Life skills education: Preparing learners for the future.* UNESCO Publishing. https://unesdoc.unesco.org

Van Deur, P. (2020). Middle school teachers' views on developing self-directed learning. *Educational Studies, 46*(6), 703-722.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.

Wang, L. (2023). The impact of student-centered learning on academic motivation and achievement: A comparative research between traditional instruction and student-centered approach. *Journal of Education, Humanities and Social Sciences, 22*(1), 45-62.

Weimer, M. (2013). *Learner-centered teaching: Five key changes to practice* (2nd ed.). Jossey-Bass.

Woods, P. J., & Copur-Gencturk, Y. (2024). Examining the role of student-centered versus teacher-centered pedagogical approaches to self-directed learning through teaching. *Teaching and Teacher Education, 89*, 104415.

World Economic Forum. (2020). *The future of jobs report 2020.* World Economic Forum. https://www.weforum.org/reports/the-future-of-jobs-report-2020

Zhu, M. (2021). Enhancing MOOC learners' skills for self-directed learning. *Distance Education, 42*(3), 441-460. DOI: https://doi.org/10.1080/01587919.2021.1947537