

# CONFLUX

## JOURNAL OF EDUCATION

ISSN 2320-9305 (PRINT) ISSN 2347-5706 (ONLINE)

---

A PEER REVIEWED JOURNAL PUBLISHED SINCE 2013

VOLUME 14

ISSUE 1

DECEMBER 2025

---

[cjoe.naspublishers.com](http://cjoe.naspublishers.com)

## **The Impact of Student–Centered Learning on Engagement and Skill Development in Banking Education**

Sonia V. Nair  
Vocational Teacher  
N.S.S Vocational Higher Secondary School  
Changanacherry, Kottayam

### **Abstract**

Traditional teaching methods in vocational banking education often emphasize memorization of procedures and theoretical knowledge, with limited focus on practical workplace applications. This study explores the integration of student-centered learning (SCL) into vocational banking curricula to enhance student skills, engagement, and professional readiness. Using positivist research approach, 54 students across multiple vocational institutes and professionals from various banking entity participated in the study. The research examined the impact of SCL strategies on learning outcomes and skill development in vocational banking education. By implementing personalized approach like field visit, on the job training, role play, customized assignments, students are equipped to adapt effectively to the dynamic demands of modern banking environment. Findings indicate that SCL in vocational banking education enhances learner outcomes, equips students to perform real-world banking tasks, and improves employability prospects. The study concludes that SCL is not merely a traditional instructional strategy but a pedagogical necessity for preparing skilled graduates. Recommendations include structured SCL modules, faculty training in active learning methods, and assessment systems aligned with industry-relevant competencies. Furthermore this study highlights that SCL and

personalization transform banking education into a more progressive career-aligned learning experience.

*Keywords:* Student-centered learning, vocational banking education, personalized learning instructions, employability skill, practical competence, students' motivation.

## **Introduction**

Student- Centered Learning (SCL)—an Educational Approach that Shifts Focus from teacher-led instruction to active, learner-driven processes—has been widely recognized for fostering autonomy, critical thinking, and practical skill development in vocational and technical education (UNESCO, 2019). In vocational banking education, graduates are expected to perform client-facing operations, apply procedural rules accurately, and adapt to dynamic digital banking environments. SCL methods such as case-based simulations, role-plays, project work, and formative peer assessment can bridge the persistent gap between theoretical knowledge and workplace competence (Kerimbayev, Abdykarimova, Akramova, & Smagulova, 2023). Despite its demonstrated effectiveness in general vocational and finance education, the application of SCL in vocational banking programs remains underexplored. Most existing studies focus on general finance courses or broad vocational subjects, with limited attention to banking-specific competencies such as teller operations, digital banking platforms, and customer service simulations (Muhammad, Yusof, & Rahman, 2022). Moreover, research frequently emphasizes short-term classroom outcomes, such as knowledge retention or engagement, while long-term employability skills, practical competence, and adaptability in real-world banking environments remain largely unexamined. This gap is particularly pronounced in the Indian vocational banking

context, where there is a growing demand for graduates who are both technically proficient and capable of independent, client-focused problem-solving. Addressing this gap is critical, as SCL offers the potential to enhance both practical competence and workplace readiness in vocational banking programs. By designing and implementing context-specific SCL modules, educators can foster higher engagement, critical thinking, and employability among students, aligning training outcomes with the evolving demands of the banking sector.

### **Review of Literature**

Previous studies have consistently demonstrated that student centred learning (SCL) and personalization significantly enhance learning outcomes in vocational education particularly in banking related programs. Research by Janor et al. (2013) examined finance courses in a Malaysian research university and found that employing interactive methods (group projects, case studies, presentations) improved relevance and better alignment with the industry needs. Similarly Zoyke (2023) reported that personalization positively influences student motivation and mastery when appropriate technological and pedagogical supports are in place. Furthermore, findings from vocational education reviews by UNESCO (2023) and the World Bank (2022) revealed that student -centred and personalization can improve employability and certification when aligned with labour market need. A case research published by Scientific Research Publication (SCIRP) (2021) applied SCL model using discovery and project strategies to implement SCL in skill based programs. A design based case study on personalized learning instruction in vocational education and training (Dr Andrea Zoyke 2014) offers valuable insights into implementing personalized learning in vocational education. Ian Duckeet (2010) emphasizes

the critical role of teachers in facilitating personalized learning and development to implement student centred approaches. Although student centred learning and personalization have been widely studied, empirical research specifically addressing banking vocational subjects is limited. Thus study seeks to identify how SCL and personalization can be tailored to improve competence in banking related task and support employability, while also exploring the challenges and opportunities in implementing these approaches in vocational Banking Education.

### **Research design and Methodology**

The research was conducted across various educational institutions primarily located in Ernakulam and kottayam districts in Kerala, India. Along with the data collected from students opted Banking as Vocational subject, data was also gathered from employees across various banking organizations. These areas were chosen due to their accessibility and diversity of population .Structured questionnaires were designed and responses from both students and employees were systematically recorded.

A total of 54 students across various educational institutions and employees from multiple banking organisations took part in this study. Quantitative data were collected using structured questionnaires and analysed using descriptive statistics such as mean, standard deviation and skewness to summarise student perception.

### **Results and Discussion**

#### **General information**

**Table 1:** *Sample composition*

Variable	Category	Frequency	Percent
Gender	Male	36	62.1
	Female	22	37.9
Age group	Below 18	51	87.9
	Above 18	7	12.1
Education	Plus-One	33	56.9
	Plus-Two	25	43.1
Institution	Government	23	39.7
	Semi-Govt	33	56.9
	Private	2	3.4
Vocational stream	Banking	50	86.2
	Accounting	8	13.8

Source: Primary data

As per Table 1 the demographic profile of the respondents shows that a majority of them are male (62.1%), while females constitute 37.9% of the total sample. In terms of age group, most respondents are below 18 years (87.9%), indicating that the study primarily involves younger participants, likely school students. Only 12.1% are above 18 years. Regarding educational qualification, 56.9% of the respondents are studying in Plus-One, whereas 43.1% are in Plus-Two. This suggests that both higher secondary levels are well represented in the study. When classified by type of institution, the majority are from semi-government schools (56.9%),

followed by government institutions (39.7%), and a small portion from private institutions (3.4%). With respect to the vocational stream, most respondents belong to the Banking stream (86.2%), while only 13.8% are from the Accounting stream. This implies that the study population is largely concentrated in the banking-oriented curriculum.

### **Descriptive Results on Learning Perceptions**

**Table 2**

*Descriptive statistics of the sample respondents*

Variables	Mean	SD	Skewness
Develops technical & interpersonal banking skills	4.14	0.99	-1.55
Online platforms/apps help learn banking practices	4.12	1.02	-1.41
Student-centred learning makes classes engaging	4.04	1.05	-1.41
Personalised learning improves practical banking knowledge	4.00	1.15	-1.32
Integration of SCL & personalisation should continue	4.00	1.13	-1.37
Bridges gap between theory and practice	3.84	0.65	-2.28
Confidence in performing real banking tasks	3.79	0.70	-0.65
Learning process focuses on student understanding	3.70	1.07	-1.64
SCL increases curiosity about banking profession	3.67	1.06	-1.63
I apply classroom knowledge to banking situations	3.68	1.05	-1.41
Technology gives personalised learning opportunities	3.65	0.99	-1.52
Integrated approach prepares me for banking employment	3.56	1.04	-1.22
Classroom encourages independent banking research	3.54	0.91	-1.03

Variables	Mean	SD	Skewness
Feel prepared for banking career through SCL integration	3.51	0.95	-0.68

Source: Primary data

Table 2 presents the mean, standard deviation, and skewness values for various statements related to student-centred learning (SCL) and personalised learning in banking education. Overall, the mean scores for all variables range between 3.51 and 4.14, indicating a generally positive perception among students toward SCL and personalised learning methods. The highest mean score (4.14) is for the statement “Develops technical & interpersonal banking skills”, suggesting that students strongly agree that the learning approach enhances both their technical and interpersonal abilities. Similarly, statements like “Online platforms/apps help learn banking practices” (Mean = 4.12) and “Student-centred learning makes classes engaging” (Mean = 4.04) also reflect strong positive responses, indicating that technology and interactive learning methods significantly enrich the classroom experience. Moderate mean values (around 3.5 to 3.8) are observed for statements such as “Confidence in performing real banking tasks” (Mean = 3.79) and “Feel prepared for banking career through SCL integration” (Mean = 3.51), showing that while students are generally confident and career-oriented, there is still scope for enhancing practical readiness. The standard deviation (SD) values range from 0.65 to 1.15, showing moderate variability in responses, meaning that most students shared similar opinions without major disagreement. The skewness values for all variables are negative, ranging from -0.65 to -2.28, indicating that the data are left-skewed—most respondents rated the items on the higher end of the scale (agreement side). The highest negative skewness (-2.28) for “Bridges gap

between theory and practice” highlights that a majority of students strongly agree that the integrated learning approach effectively connects theoretical and practical knowledge.

### Tests of Normality (Shapiro-Wilk)

**Table 3**

*Tests of Normality (shapiro-wilk)*

SCL Items	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
1. Learning process focuses on student understanding	0.417	57	< 0.001	0.665	57	< 0.001
2. I apply classroom knowledge to banking situations	0.372	57	< 0.001	0.743	57	< 0.001
3. Technology gives personalised learning opportunities	0.410	57	< 0.001	0.697	57	< 0.001
4. Develops technical & interpersonal banking skills	0.303	57	< 0.001	0.748	57	< 0.001
5. Integrated approach prepares me for banking employment	0.331	57	< 0.001	0.785	57	< 0.001
6. Confidence in performing real banking tasks	0.355	57	< 0.001	0.790	57	< 0.001
7. Student-centred learning makes classes engaging	0.294	57	< 0.001	0.777	57	< 0.001
8. Classroom encourages independent banking research	0.289	57	< 0.001	0.820	57	< 0.001

SCL Items	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
9. Personalised learning improves practical banking knowledge	0.272	57	< 0.001	0.781	57	< 0.001
10. SCL increases curiosity about banking profession	0.413	57	< 0.001	0.668	57	< 0.001
11. Online platforms/apps help learn banking practices	0.277	57	< 0.001	0.772	57	< 0.001
12. Critical-thinking & problem-solving skills improved	0.341	57	< 0.001	0.776	57	< 0.001
13. Bridges gap between theory and practice	0.456	57	< 0.001	0.566	57	< 0.001
14. Integration of SCL & personalisation should continue	0.289	57	< 0.001	0.774	57	< 0.001
15. Feel prepared for banking career through SCL integration	0.224	57	< 0.001	0.672	57	< 0.001

Source: Primary data

The Kolmogorov–Smirnov and Shapiro–Wilk tests were conducted to assess whether the data for each SCL item followed a normal distribution (See Table 3). For all 15 variables, the significance values (Sig.) are less than 0.001, which is below the conventional threshold of 0.05. This indicates that the null hypothesis of normality is rejected for all items. In other words, the distribution of responses for every SCL item deviates significantly from normality. The test

statistics (both Kolmogorov–Smirnov and Shapiro–Wilk) show relatively high values, and the p-values < 0.001 confirm that the data are not normally distributed. This suggests that respondents’ ratings are clustered toward one side of the scale—likely the higher end, as supported by earlier negative skewness values in the descriptive analysis. Since the data violate the assumption of normality, this implies that non-parametric tests would be more appropriate for further statistical analysis. So we proceed with chi-square test for further analysis.

**Analysis of Student-Centered Learning Across Demographic and Institutional Variables**

**Gender and Student-centered Learning**

**Table 4**

*Gender-wise distribution of student-centered learning Scores*

Gender	Frequency	Chi-Square Value ( $\chi^2$ )	df	Sig. (p)
Male	36	16.835	21	.721
Female	22			

Source: Primary data

As shown in Table 4 there is **no statistically significant association** between gender and perception of student-centered learning ( $p > .05$ ). Both **male and female students** reported **similar levels of agreement** with statements related to student-centered learning. Although males show slightly higher frequencies in higher score ranges (4.00–4.47), the differences are **not large enough** to be statistically meaningful. This suggests that **gender does not influence** how students perceive student-centered learning in this vocational setting.

## Age Group and Student-Centered Learning

**Table 5**

*Age group and student-centered learning cross-tabulation*

Age Group	Frequency	Chi-Square Value ( $\chi^2$ )	df	Sig. (p)
Below 18	51	31.373	21	.068
Above 18	7			
Total (N = 58)	58			

Source: Primary data

As depicted in Table 5 the result is **close to the significance threshold (p = .068)** but still **not significant at the 0.05 level**. This means that **age group (below 18 vs. above 18)** does not show a significant difference in perceptions of student-centered learning. However, there is a **trend** suggesting that students **below 18 years** tend to report slightly higher learning scores (3.93–4.20 range). This may imply that **younger students are more receptive** to participatory, student-centered methods, though this cannot be statistically confirmed from the current data.

## Educational Level and Student-Centered Learning

**Table 6**

*Age group and student-centered learning cross-tabulation*

Age Group	Frequency	Chi-Square Value ( $\chi^2$ )	df	Sig. (p)
Below 18	51	31.373	21	.068

Age Group	Frequency	Chi-Square Value ( $\chi^2$ )	df	Sig. (p)
Above 18	7			

Source: Primary data

As indicated in Table 6 the **education level (Plus One vs. Plus Two)** also shows **no significant difference** in perception of student-centered learning ( $p > .05$ ). Both groups display a similar distribution of responses, with the majority of scores clustered around the **4.00 range**, indicating **general agreement and satisfaction**. This suggests that students at both higher secondary levels **equally value** and respond positively to student-centered activities such as role play.

### Type of Institution and Student-Centered Learning

**Table 7**

*Type of Institution and Student-centered Learning*

Institution Type	Frequency	Chi-Square Value ( $\chi^2$ )	df	Sig. (p)
Government	23			
Semi-Government	33	39.068	42	.600
Private	2			

Source: Primary data

As per Table 7, no significant relationship is observed between **institution type (Government, Semi-Government, Private)** and student-centered learning ( $p > .05$ ). Students from all types of institutions display **comparable perceptions** of student-centered learning, with responses

concentrated in the **4.00–4.20 range**. This indicates that **institutional affiliation does not influence** how students experience or evaluate student-centered instructional methods.

### Vocational Specialization and Student-Centered Learning

**Table 8**

*Vocational Specialization and Student-Centered Learning*

Vocational Specialization	Frequency	Chi-Square Value ( $\chi^2$ )	df	Sig. (p)	Linear-by-Linear Association (p)
Banking	50	27.163	21	.166	.027
Accounting	8				
Total (N = 58)	58				

Source: Primary data

As per Table 8 showing the relationship between vocational specialization and student-centered learning is **the only one showing a significant trend**. While the overall chi-square is not significant ( $p = .166$ ), the **linear-by-linear association is significant ( $p = .027$ )**, indicating a **patterned relationship** between **vocational specialization** and **student-centered learning**.

Students in the **Banking specialization** consistently score higher (4.00–4.40 range) compared to those in **Accounting**, suggesting that **banking students perceive or benefit more** from student-centered learning approaches. This may be because **role play and simulation activities** directly align with practical banking scenarios, enhancing engagement and skill relevance.

**Table 9**

*Hypotheses Testing Results for Student-Centered Learning*

Hypothesis No.	Hypothesis Statement	Decision / Status
H <sub>01</sub>	There is no significant association between Gender and Student-Centered Learning.	Accepted
H <sub>02</sub>	There is no significant association between Age Group and Student-Centered Learning.	Accepted
H <sub>03</sub>	There is no significant association between Educational Level and Student-Centered Learning.	Accepted
H <sub>04</sub>	There is no significant association between Type of Institution and Student-Centered Learning.	Accepted
H <sub>05</sub>	There is no significant association between Vocational Specialization and Student-Centered Learning.	Rejected

**Findings**

Across all categories, **student-centered learning is generally well-received**, with mean response scores clustering around **4.0 (Agree)** on a 5-point scale. No major demographic or institutional differences were observed except for a **mildly significant relationship in vocational specialization**, where **banking students benefited more** from experiential, student-led approaches such as role play. This reinforces that **student-centered methods are universally**

**effective** but may yield particularly strong engagement when **activities directly align with practical, profession-based skills.**

### **Suggestions**

Based on the above findings, followings recommendations were put forward to integrate Student Centered Learning and personalization in banking education.

- 1) Banking vocational education must incorporate practical based curriculum in order to develop key professional skills and practical competencies in banking profession.
- 2) Provide real world exposure by allowing students to participate through field visit and facilitate on the job training which allows students to participate directly in banking task.
- 3) Facilitate independent learning where focus shift from teacher –led instruction to self – directed learning.
- 4) Promote project based task to encourage learners to think critically and solving problems by simulating real world scenarios
- 5) Use AI –powered simulations to practice banking operations such as opening accounts, loan processing, customer services, and financial analysis in a safe and interactive environment.

### **Delimitations of the Study**

This study has minimal limitations that should be acknowledged. The sample was relatively small which may not be widely generalizable. Limited exploration of digital tools may

also have affected the consistency of the results. Time constraints limited the scope of the study restricting the assessment of long – term career outcomes.

### **Conclusion**

This study highlights how integration of student-centered learning and personalisation in banking education can cultivate industry – ready graduates. Despite a large number of graduates and post graduates in our state, the core issue is lack of skilled professionals with technical proficiency. Our educational system must emphasize on personalized learning and practical skill development. Instead of rote memorization, engage the students to understand the practical aspects of banking field. This approach will prepare students to equip a successful banking career in future .This study indicates that our state curriculum still focuses more on theoretical curriculum rather than prioritizing real world applications, Government should take proactive measures to ensure career readiness as a key element of curriculum that supports economic growth and development while tackling the shortage of expertise in the sector.

### **References**

- Duckett, I. (2010). Personalized learning and vocational education and training. In P. L. Peterson, E. Baker, & B. McGaw (Eds.), *International encyclopedia of education* (Vol. 8, pp. 391–396). Elsevier.
- Fariani, F. W., Dewi, S. S., & Nuraeni, E. (2023). *Personalised learning in vocational higher education: A model for diverse learners* (pp. 1–31).

- Janor, H., Rahim, R. A., Rahman, A. A., Auzairy, N. A., & Yusof, M. A. M. (2013). Integrating student-centered learning in finance courses: The case of a Malaysian research university. *International Education Studies*, 6(6), 108–118.
- Jiang, N. (2024). Thinking and application of humanistic learning theory in secondary vocational education teaching. *Advances in Vocational and Technical Education*, 6(4).
- Kakhkharov, J., & Yalcin, E. (2023). Teaching finance: Designing a learner-centered curriculum and innovative authentic assessments. *Advances in Financial Education*, Summer, 1–17.
- Lumatauw, L., Wollah, M., & Tulangow, R. (2020). Application of student-centered learning (SCL) method through discovery strategies in vocational education. *Open Journal of Social Sciences*, 8(11), 1–15.
- McCombs, B. L., & Miller, L. (2006). *Learner-centered classroom practices and assessments: Maximizing student motivation, learning, and achievement* (pp. 1–296). Corwin Press.
- UNESCO Bangkok Office. (2023). *Learner-centred teaching in technical and vocational education and training: Perspectives and reviews of six Asia-Pacific countries*. UNESCO.
- Xie, H., Chen, Q., & Huang, J. (2019). Research on the implementation of personalized teaching in vocational education based on big data systems. *International Journal of Emerging Technologies in Learning*, 14(15), 123–135.
- Zoyke, A. (2014). Personalized learning instruction in vocational education and training: A design-based case study on challenges and approaches. *International Journal for Business Education*, 154(1), 1–15.