

Student-Centric Learning as Educational Management Reform: Evidence of Social Retention Change in Adult Secondary Education

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ABSTRACT

Student-Centric Learning (SCL) has become a central paradigm in contemporary educational reform, yet its empirical impact on adult learners in upper-secondary education remains insufficiently examined. This study investigates the effectiveness of SCL in reducing dropout rates and enhancing study completion within the context of adult upper-secondary education. Using a comparative design, two independent cohorts were analysed: a traditional distance study model ($n = 6,723$) and a student-centric model ($n = 1,310$). Completion rates differed dramatically between the two groups: 67.28% of learners graduated in the distance model, compared to 94.66% in the SCL cohort, a difference of 27.38 percentage points. Statistical testing confirmed the robustness of this effect ($z = 20.135$; $p < 0.001$), with learners in the SCL model being 1.41 times more likely to complete their studies and exhibiting 8.62 times higher odds of completion. The findings reveal that SCL functions as a synergistic constellation of pedagogical, relational, and organisational mechanisms including adaptive pacing, personalisation, continuous formative feedback, and high teacher–learner interaction, creating an environment that significantly strengthens learner persistence. Interpreted through a cultural-sociological lens, SCL emerges not only as a pedagogical approach but as an institutional and cultural intervention that enhances recognition, agency, and belonging, particularly for adult learners navigating complex life circumstances and historically higher rates of educational discontinuity. The study offers important implications for educational policy and institutional practice, demonstrating that learner-centred models can substantially reduce dropout, increase retention, and align with European strategies promoting inclusion, resilience, and lifelong learning. While limitations arise from the use of aggregated datasets and contextual differences between cohorts, the results provide strong quantitative evidence of the transformative potential of SCL in upper-secondary adult education. The study contributes to current debates on educational equity and institutional culture, showing that SCL constitutes a highly effective pathway towards more inclusive, adaptive, and socially responsive educational systems.

Keywords: student-centered learning, adult education, upper secondary education, completion rate, student retention, comparative analysis.

INTRODUCTION

Adult education has undergone a profound transformation over recent decades, a transformation that extends beyond changes in didactic approaches and reflects deeper cultural and social shifts characteristic of late modern societies. The erosion of traditional life-course biographies, the flexibilisation of labour markets, the digitalisation of everyday life, and the widening of educational inequalities have all contributed to the fact that formal adult education can no longer be regarded as a marginal phenomenon. Rather, it constitutes one of the key mechanisms

through which the social structure of society is either reproduced or, conversely, disrupted (Bourdieu & Passeron, 1990; Field, 2011, Procházka, 2019).

In both European and global contexts, adult education is explicitly linked to the aims of social cohesion, participation, and inclusion. OECD reports demonstrate that education has not only economic but also significant social effects: it promotes health, civic engagement, and interpersonal trust within society (Schuller & Desjardins, 2007; OECD, 2007). Similarly, the global GRALE reports on adult learning emphasise that adult participation in education is essential for achieving the Sustainable Development Goals and the right to education, while also drawing attention to persistent inequalities in access, particularly among socially disadvantaged groups (UNESCO Institute for Lifelong Learning, 2016, 2019). Adult education thus emerges as a salient arena where labour market policies, social policy, cultural policy, and identity politics intersect (Jarvis, 2004; Biesta, 2015).

Within this broader framework, traditional transmissive forms of instruction—characterised by frontal teaching, uniform pacing, and limited interaction—appear structurally inadequate, especially in an andragogical context in which learners possess diverse life situations, trajectories, and needs. As shown by Tang (2023) and Alshraah et al. (2023), rigid, teacher-directed models often lead adult learners towards passivity, alienation, and ultimately attrition. Consequently, the contemporary literature is increasingly emphatic about the need to shift towards models that conceive of adults as active agents embedded in specific sociocultural contexts and life courses.

The concept of Student-Centric Learning (SCL) represents, in this regard, not merely a pedagogical innovation but also a form of educational and managerial reform that reshapes the distribution of power and responsibility within the institution. SCL positions the learner as an active agent who co-constructs the trajectory of their learning, connects new knowledge with lived experience, and engages in a diverse repertoire of activities from project- and problem-based learning to reflective tasks and digitally mediated forms of learning (Tang, 2023; Desai et al., 2025), responsibility for learning moves from teacher-structured instruction towards learner-facilitated activities, without necessarily rendering these poles antagonistic (Tang, 2023).

From the perspective of cultural analysis, SCL can be understood as an intervention into what Bernstein terms the pedagogic apparatus: „*the set of rules through which knowledge is “translated” into curriculum, instruction, and assessment*“ (Bernstein, 2000; Singh, 2002). When this apparatus is restrictive and strongly classificatory, it reproduces existing power and cultural hierarchies. This shift is not a one-off rupture but a “continuum of gradual facilitation”, in which flexible, participatory, and personalised arrangements may contribute to the transformation of cultural capital and to the questioning of entrenched educational inequalities (Bourdieu & Passeron, 1990). In the context of adult learners, many of whom have prior experiences of educational failure, such transformation can be particularly significant, as it opens a second chance for education and for altering one’s social status.

Student-centric learning models are repeatedly linked in the literature to both improved learning quality and enhanced retention, that is, learners’ likelihood of persisting and completing their studies. Research by Alshraah et al. (2023) and Niketh (2014) demonstrates that autonomy, self-directed learning, high-quality interactions with instructors, and the ability to adapt study pace to individual needs all substantially contribute to academic success. Tinto’s (2012) classic theory conceptualises student persistence as the outcome of a combination of academic and social integration: if institutions fail to create an environment in which learners feel supported, respected, and valued, the risk of premature departure (dropout) increases. For adult learners who balance study with work and family responsibilities, such integration and institutional support are even more fragile and more dependent on the quality of organisational and pedagogical design.

International research (e.g., Rajaram, 2021; Ortega-Alvarez et al., 2024; Pandey et al., 2023; Kerimbayev et al., 2023) likewise shows that SCL is becoming an integral part of the digital transformation of education and that its effects are particularly evident in hybrid or online environments, where personalisation, adaptive pacing, and continuous support can be effectively implemented. Yet these studies originate predominantly from higher education settings or from contexts in the Global North or from selected countries of the Global South and only rarely focus on secondary adult education.

In the Czech or Slovak contexts, systematic empirical studies examining student-centric models as a form of educational management reform in upper-secondary adult education remain notably absent. Moreover, the impact of such models on concrete educational outcomes, particularly completion rates, has rarely been analysed, despite the fact that non-completion rates in part-time and blended forms of study have long been high and constitute one of the most pressing challenges for andragogical institutions, with direct consequences for inequalities in access to qualifications, for labour markets, and for social cohesion (Schuller & Desjardins, 2007; UNESCO Institute for Lifelong Learning, 2016).

This study conceptualises Student-Centric Learning as a tool of educational and organisational reform capable of transforming patterns of social retention in upper-secondary adult education. Drawing on an extensive dataset of learners enrolled in two distinct educational models, traditional part-time study and an individualised SCL model, we empirically test whether these differing pedagogical–organisational logics translate into a key indicator of

educational quality and equity: the rate of successful study completion. The analysis thus contributes not only to discussions on the effectiveness of SCL but also to broader debates concerning how specific changes in educational management may influence social (in)equalities, the cultural inclusion of adult learners, and processes of social change in Central Europe.

MATERIAL AND METHODS

Research Aim and Conceptual Positioning

The primary aim of this study is to determine whether the implementation of a Student-Centric Learning (SCL) model in upper-secondary adult education leads to significantly higher programme completion rates than the traditional distance-based model commonly used in the Czech Republic. Completion is defined as the attainment of final graduation, whereas non-completion refers to all forms of early withdrawal, including dropout, prolonged inactivity, and failure to meet programme requirements. A secondary aim of the research is to identify which pedagogical and organisational elements of SCL such as individualisation, adaptive pacing, continuous support, and relational interaction might plausibly account for the observed differences in outcomes.

Presented study conceptualises completion rates not simply as technical indicators of institutional performance but as outcomes embedded within specific cultural, institutional, and relational contexts. Adult learning trajectories are shaped by cultural expectations, institutional norms, and learners' identity work, making the exploration of SCL's effect on completion a question of both pedagogical effectiveness and cultural sociology.

Research Questions and Hypotheses

This study addresses three principal research questions:

- The first RQ1 asks whether the SCL model yields higher completion rates than the traditional distance-based pathway in Czech adult secondary education.
- The second RQ2 examines which pedagogical and organisational features characteristic of SCL may plausibly contribute to the differences in completion.
- The third RQ3 situates these findings within a cultural-sociological framework by exploring how varying institutional cultures, relational dynamics, and forms of learner agency shape persistence in adult learning. The analysis is guided by a directional hypothesis.
- The null hypothesis H_0 asserts that there is no difference in completion rates between SCL and traditional distance study ($p_1 = p_2$).
- The alternative hypothesis H_A posits that the SCL model results in a significantly higher completion rate ($p_2 > p_1$).

The expectation of a positive effect follows from theoretical frameworks which show that individualisation, recognition, relational support, and institutional responsiveness foster higher levels of learner engagement and retention, particularly among adults managing multiple social roles and responsibilities.

Research Design

A quantitative comparative design was chosen to evaluate differences in completion outcomes across two independent cohorts of adult learners exposed to distinct pedagogical models. The first cohort completed a traditional distance-based form of secondary education, characterised by a teacher-centred structure, limited interaction, and fixed pacing. The second cohort undertook studies under the Student-Centric Learning model, which emphasises personalised pathways, adaptive tempo, interactive learning, and continuous formative support.

The independent variable is the type of educational model (distance study vs. SCL). The dependent variable is the binary outcome of completion (completed vs. not completed). The comparative design allows for population-level inference while acknowledging that real-world educational systems rarely permit randomly assigned experimental conditions.

Data Sources and Sampling

Two distinct data sources were used. Data on traditional distance-based study were obtained from publicly available administrative statistics provided by the Czech Ministry of Education. The dataset comprises 6,723 newly enrolled adult learners in the 2017/2018 academic year and 4,523 who successfully completed their studies in 2021/2022, corresponding to a completion rate of 67.28 per cent.

Data for the SCL cohort were drawn from institutional administrative records of the European Academy of Education in Prague. This dataset includes 1,310 learners enrolled in SCL programmes between 2010 and 2024, of whom 1,240 completed their studies, resulting in a completion rate of 94.66 per cent.

Both datasets use an identical operational definition of “completion”, ensuring comparability. As the study relies on aggregated data rather than individual-level records, no personal identifiers are included, which guarantees full anonymity but limits the ability to control for individual-level confounders.

Analytical Strategy

The analysis proceeds in two stages. First, descriptive statistics are used to calculate the completion and non-completion rates for both cohorts, along with the absolute and relative differences between them. These indicators offer an initial understanding of the magnitude and practical significance of the differences observed.

Second, inferential statistics are applied to test the hypotheses. A two-proportion z-test is used to determine whether the difference in completion rates between the two groups is statistically significant. Given the theoretically supported expectation that the SCL model should yield higher completion rates, a one-tailed test is applied. The significance threshold is set at $\alpha = 0.05$, with an additional robustness check at $\alpha = 0.001$, taking into account the relatively large sizes of both cohorts. The test uses the pooled proportion and standard error of the difference between proportions to calculate the z-statistic and the corresponding p-value.

Data Processing Procedures

The analysis follows a structured process. First, cohorts were identified according to the defined intake and completion periods. The distance-study cohort corresponds to the 2017/2018 intake with completion recorded in 2021/2022, while the SCL cohort includes all intakes from 2010 to 2024 under a consistent definition of completion. Second, the data underwent standardisation to ensure harmonised definitions across both sources. Third, all key indicators including completion rates, non-completion rates, risk differences, and risk ratios were computed for each cohort. Fourth, the two-proportion z-test was applied to formally test the hypothesis of difference. Finally, results were interpreted with attention to both statistical and practical significance as well as to their cultural-sociological context.

Reflexive Methodological Positioning

The study adopts a pragmatic-constructivist epistemological stance, acknowledging that quantitative indicators such as completion rates are embedded in broader institutional, cultural, and relational dynamics rather than existing as neutral metrics. Three principles guide this orientation.

First, educational outcomes are understood as culturally and institutionally situated. The SCL and distance models embody distinct pedagogical cultures, with differing expectations regarding learner autonomy, institutional support, and interaction, all of which shape learner trajectories.

Second, persistence in adult learning is approached as a process rooted in agency, recognition, and identity work. SCL may strengthen learners' sense of belonging and institutional embeddedness, factors repeatedly linked to higher retention in adult and lifelong learning.

Third, the use of aggregated administrative data requires methodological transparency. While such data offer strong population-level insight, they constrain causal inference and obscure individual-level processes. The study therefore combines rigorous statistical testing with a culturally sensitive interpretative frame, consistent with contemporary methodological expectations in cultural sociology.

Ethical Considerations

The study is based exclusively on aggregated administrative data and institutional records that do not contain any personal identifiers. In accordance with Czech legislation on secondary analyses of anonymised data, no formal ethical approval was required. All procedures comply with principles of confidentiality, transparency, and responsible research practice.

Methodological Visual Summary

The research involves two independent cohorts of adult learners in Czech upper-secondary education. The traditional distance-study cohort contains 6,723 newly enrolled learners, of whom 67.28 per cent completed their studies. The SCL cohort includes 1,310 newly enrolled learners, of whom 94.66 per cent completed their studies. Completion is treated as a binary outcome and compared across the two pedagogical models. The analysis uses descriptive statistics and a one-tailed two-proportion z-test to assess differences in completion rates. The findings indicate a substantial and statistically significant advantage for the SCL model. This disparity is interpreted through a framework that integrates pedagogical mechanisms with institutional culture and cultural-sociological processes shaping adult learners' persistence and educational trajectories.

Limitations

Several limitations must be acknowledged. The study relies exclusively on aggregated data and therefore cannot control for individual characteristics such as socioeconomic status, motivation, or work–life conditions. Potential

selection effects may exist, as learners choosing SCL may possess higher intrinsic motivation or stronger self-regulatory skills. Institutional contexts differ between the two educational models, which may influence retention beyond pedagogy alone. The cohorts differ in size, which may affect variance, although the large dataset ensures strong statistical power. The absence of longitudinal, individual-level educational pathways prevents analysis of micro-trajectories such as temporary withdrawals or returns to study. The lack of qualitative data constrains the ability to understand learners' experiences and motivations in depth. Finally, the binary definition of completion does not account for partial achievements or non-linear goals that are often relevant in adult-learning contexts. These limitations are discussed further in the Discussion section, where implications for future research are also outlined.

LITERATURE REVIEW

Student-Centric Learning as a Cultural and Pedagogical Transformation

Over the past two decades, Student-Centric Learning (SCL) has become a defining paradigm across global educational systems, yet its significance extends far beyond pedagogy alone. In line with contemporary cultural sociology, SCL can be understood as a manifestation of broader transformations in agency, identity, participation, and the democratisation of knowledge, reflecting the changing relations between individuals and institutions in late-modern societies. SCL positions the learner as an active agent whose experiences, identities, and sociocultural contexts shape the learning process (O'Neill & McMahon, 2015; Loyens et al., 2023).

Existing research stresses that SCL fosters autonomy, metacognition, critical-analytic reasoning, and responsibility for personal learning trajectories, all of which are increasingly valued in societies characterised by fluid labour markets, rapid technologisation, and shifting cultural expectations. As European University Association (2019) highlights, SCL has become one of the normative pillars of democratic, inclusive, and quality-oriented education in the European Higher Education Area, principles now gradually permeating adult and secondary education as well.

From a cultural perspective, SCL embodies the transition from hierarchical, authority-centred pedagogies to participatory and relational models of knowledge formation. This shift resonates with contemporary debates on learner agency (Biesta, 2020), recognition (Fraser, 2019), and the co-production of knowledge (Khan et al., 2022), situating SCL within wider processes of social and institutional change.

Cultural, Institutional, and Identity Dimensions of SCL

Several recent studies argue that SCL represents not only a methodological adjustment but also a reconfiguration of institutional cultures, role expectations, and power relations between teachers and learners (Tang, 2023; Bisht & Al Aflak, 2025). This is particularly salient in adult education, where learners bring established identities, work-life responsibilities, and complex learning histories.

Research consistently demonstrates that relational dynamics—including trust, recognition, mutual respect, and dialogic communication—are crucial for learning persistence (Karasová & Nehyba, 2023; Goel & Garg, 2024). These findings align with cultural-sociological perspectives that emphasise the centrality of relationality and belonging for participation in social institutions (Lamont et al., 2014).

SCL thus intersects with broader cultural imperatives of participation, inclusion, and personalised engagement, reflecting contemporary expectations that institutions recognise the diversity of learners' trajectories, needs, and cultural capital (European Commission, 2024). This contributes to its relevance for adult secondary education, where diverse life-course patterns and structural inequalities significantly shape educational outcomes.

SCL and Social Inequalities: A Cultural-Sociological Lens

Educational systems have long been implicated in maintaining or mitigating inequalities related to class, gender, ethnicity, and migration background. Recent studies (e.g., Boylan, 2023; Ainscow, 2020; Jenner, 2022) suggest that learning environments grounded in agency and recognition can counteract patterns of disaffection and socio-educational exclusion.

Adult learners, particularly those returning to education after previous failure or marginalisation, often face institutional, psychological, and cultural barriers (Boeren, 2017). SCL models mitigate these barriers by promoting adaptability, personalised pathways, and supportive relational cultures (Lane, 2012; Murphy et al., 2021). These mechanisms correspond to our empirical results, which indicate extraordinarily high completion rates under the SCL model (94.66% compared to 67.28% in traditional distance education).

By enabling flexible pacing, recognising learners' life circumstances, and embedding continuous feedback and support, SCL can be interpreted as a culturally responsive pedagogical form that enhances learners' sense of competence and identity stability, key dimensions highlighted in contemporary cultural theory (Swidler, 2022; Reckwitz, 2023).

Pedagogical Mechanisms Underpinning SCL

Empirical research identifies several mechanisms consistently associated with successful SCL implementation:

- **Personalisation and Adaptive Trajectories:** Personalised pathways enhance autonomy and self-efficacy, particularly for adult and non-traditional learners (Kautish et al., 2022; Makrides, 2022). Adaptive pacing is also a strong predictor of retention (Alshraah et al., 2023; Matulčíková et al., 2024). This aligns with research on self-regulated learning in digital environments (Viberg et al., 2020; Sugiyarto, 2021).
- **Active and Experiential Learning:** Active learning methodologies including project-based, case-based, and problem-centred teaching have repeatedly been found to deepen comprehension and increase cognitive engagement (Teli et al., 2021; Pawar et al., 2025; Fu, 2024). Their positive effects are especially evident in hybrid and online environments (Emilzoli et al., 2025; Kerimbayev et al., 2023; Dixit et al., 2024).
- **Formative Feedback and Dialogic Pedagogy:** Formative, dialogic feedback is a central component of SCL and a powerful mechanism supporting perseverance and metacognitive growth (Brooks et al., 2021; Rapanta, 2021). Recent studies demonstrate its role in reducing dropout among adult learners by reinforcing the perceived clarity and predictability of study requirements (Cheon et al., 2024; Bisht & Al Aflak, 2025).
- **The Role of Digital Environments:** Digitalisation has fundamentally altered the possibilities of SCL by enabling self-paced learning, multimodal resources, and constant communication (Makrides, 2022; Pandey et al., 2023). Recent analyses (e.g., Stenalt, 2021; Motorga, 2023) underscore that digital SCL environments are effective only when they embed strong human support structures—mirroring the conditions described in our empirical dataset.

Contemporary European policy emphasises learner-centred approaches as essential for promoting inclusion, resilience, and lifelong learning (Council of the EU, 2021; European Commission, 2024; ETF, 2024). These policy frameworks conceptualise adult learners as active participants whose experiences shape learning pathways, reflecting a shift towards culturally sensitive and socially responsive pedagogies. Global studies (UNESCO UIL, 2023; OECD, 2021) similarly advocate learning models that address structural inequalities, highlight learner voice, and enable flexible participation—priorities closely aligned with SCL and strongly relevant to adult secondary education.

Recent theoretical work argues that SCL contributes to social change by:

- redistributing epistemic authority (Biesta, 2020);
- fostering learner agency as a cultural practice (Hanks, 2021);
- cultivating dispositions aligned with participatory citizenship (Ainscow, 2020);
- strengthening institutional cultures of recognition (Lamont et al., 2014);
- enhancing inclusivity for marginalised groups (Jenner, 2022).

Our findings align with these arguments: the exceptionally high completion rate associated with SCL suggests that it functions not merely as a pedagogical tool but as a culturally transformative mechanism that reshapes learners' relationship to education, institutions, and their own trajectories.

RESULTS

Descriptive statistics and baseline comparison

The analysis compares two independent groups of learners enrolled in two different models of upper-secondary adult education:

- **Distance Study (DS)**
 $n_1=6\,723$, graduates $x_1=4\,523$
 Completion rate: $p^{\wedge}_1=4523/6723=0.6728 \rightarrow 67.28\%$
 Non-completion rates: DS: $1-p^{\wedge}_1=32.72\%$
- **Student-Centric Learning (SCL)**
 $n_2=1\,310$, graduates $x_2=1\,240$
 Completion rate: $p^{\wedge}_2=1240/1310=0.9466 \rightarrow 94.66\%$
 Non-completion rates: SCL: $1-p^{\wedge}_2=5.34\%$

The descriptive comparison already indicates a substantial difference favouring the SCL model.

Table 1. Basic comparison of completion rates

Group	Newly enrolled (n)	Graduates (x)	Completion rate p^{\wedge}	Non-completion
Distance Study (DS)	6,723	4,523	67.28%	32.72%
Student-Centric Learning (SCL)	1,310	1,240	94.66%	5.34%

Source: Author's calculations

Given that the outcome variable is binary (completed vs. not completed), a comparison of proportions is the most appropriate procedure for evaluating programme effectiveness.

Effect size estimation

Because large samples may produce statistically significant results even for small effects, we report effect size indicators that capture substantive (practical) significance.

Risk Difference (RD)

$$RD = p^2 - p^1 = 0.9466 - 0.6728 = 0.2738 \rightarrow \mathbf{+27.38 \text{ percentage points}}$$

SCL is associated with an absolute increase of **27.38 p.p.** in the probability of programme completion.

Risk Ratio (RR)

$$RR = p^2 / p^1 = 1.407$$

Completion is **1.41 times more likely** in the SCL model than in distance study.

Odds Ratio (OR)

- DS odds: $0.6728 / 0.3272 = 2.056$
- SCL odds: $0.9466 / 0.0534 = 17.72 \rightarrow OR = 8.616$

Learners in the SCL model have **8.62 times higher odds** of completing their programme.

Table 2. Practical significance indicators

Indicator	Value	Interpretation
Risk difference (SCL - DS)	27.38 p.p.	+27.38 p.p. completion advantage for SCL
Risk ratio (RR)	1.407	Completion ~1.41× more likely
Odds ratio (OR)	8.616	Odds of completion ~8.62× higher

Source: Author's calculations

The effect is not only statistically significant but also **substantively large**, supporting the hypothesis that SCL is associated with higher persistence and successful completion.

Hypothesis Testing

Pooled proportion

$$p^{\wedge} = (4523 + 1240) / (6723 + 1310) = 0.7173$$

Standard error of the difference

$$SE = 0.0136SE$$

z-statistic

$$z = 0.2738 / 0.0136 = 20.135$$

p-value (one-sided: SCL > DS)

$$p = 1.821 \times 10^{-90}$$

95% CI for the difference (Newcombe/Wilson)

25.63 p.p. to 28.95 p.p.

Table 3. Hypothesis test

Test	z	p-value
Two-proportion z-test (one-sided: SCL > DS)	20.135	1.821×10^{-90}

Source: Author's calculations

The extremely small p-value demonstrates that the observed difference is **not attributable to chance**, even under highly conservative significance thresholds. The robust confidence interval further confirms the stability of the effect.

Interpretation of Results in Cultural-Sociological Context

The findings reveal that the **student-centric learning model dramatically improves educational persistence**, with a completion rate of **94.66%**, compared to **67.28%** in traditional distance study. The difference of **27.38 p.p.** represents a **culturally and institutionally significant gain**.

In line with the literature review:

- SCL enhances relational trust, recognition, and learner agency (Goel & Garg, 2024; Lamont et al., 2014; Biesta, 2020)
- Adaptive pacing reduces barriers traditionally faced by adult learners (Boeren, 20171; Makrides, 2022)
- Continuous formative feedback increases predictability of study requirements (Brooks et al., 2021; Cheon et al., 2024)
- Digital tools enable flexibility crucial to complex adult life trajectories (Saqr & López-Pernas, 2023; Salinas et al., 2024)

The large effect size is consistent with cultural-sociological theories of **recognition, institutional inclusion, and learner identity formation** (Fraser, 2019; Swidler, 2022; Reckwitz, 2023). SCL seems to operate not merely as a pedagogical technique but as a **structural and cultural intervention** that reshapes the learner–institution relationship.

SCL demonstrates statistically and practically significant superiority over the traditional distance model. Learners in SCL are 1.41 times more likely to complete their studies and exhibit more than eightfold higher odds of completion. These outcomes suggest that SCL functions as a **high-impact, culturally responsive educational model** that effectively supports learner persistence, identity stability, and institutional belonging mechanisms particularly relevant to adult secondary education.

The findings of the present study offer highly compelling evidence that the implementation of Student-Centric Learning (SCL) in upper-secondary adult education leads to substantially higher completion rates than traditional distance study. Whereas only 67.28% of learners in the distance study model successfully completed their programme, the completion rate among SCL learners reached 94.66%, resulting in an absolute difference of 27.38 percentage points. This difference is not only statistically highly significant ($z = 20.135$, $p < 0.001$), but also exceptionally strong in practical terms. While the relative risk indicates that SCL learners were 1.41 times more likely to complete their studies, the odds ratio ($OR = 8.62$) suggests that their chances of successful completion were more than eight times higher. Such a robust effect is unusual in educational research and warrants a deeper interpretation within the context of existing literature and contemporary debates on learner agency, institutional cultures, and pedagogical transformation.

The results strongly support findings from a considerable body of research demonstrating that SCL enhances academic motivation, active learner engagement, and self-regulatory capacities. Tang (2023) or Porubčanová et al. (2024) conclude that SCL increases learner autonomy, active participation, and the ability to reflect on one's learning processes, factors that significantly contribute to overall academic success. Similarly, Karasová and Nehyba (2023) report that student-centred communication characterised by relevant feedback, dialogic interaction, and support for self-regulation, consistently leads to higher motivation, reduced misbehaviour, and improved learning outcomes (see also Desai et al., 2025).

Evidence from studies on the effectiveness of SCL approaches, such as project-based learning, problem-centred teaching, or blended learning, regularly confirms their positive impact on academic performance, critical-thinking skills, and persistence. For instance, research into blended, case-centred pedagogies in nursing education has shown significant improvements in academic achievement and learners' self-evaluated competence (Tang, 2023). A similar mechanism is likely to have been at play in our study: the SCL model increased interaction, supported continuous study habits, and fostered stronger relational ties between learner and teacher, all of which are long-established predictors of retention and successful completion.

Our findings align with insights from synthetic reviews (e.g., Tang, 2023; Loyens et al., 2023), which emphasise that student-centred environments integrate several key components:

- higher levels of teacher–learner interaction (Emaliana, 2017; Yu et al., 2021),
- adaptive instructional pacing and personalisation (Kang & Keinonen, 2018; Zhang et al., 2021),
- frequent and constructive formative feedback, which nurtures metacognitive development (Murphy et al., 2021; Brooks et al., 2021),
- a high degree of autonomy and self-regulation, a crucial factor particularly for adult learners (Choi et al., 2021).

Adult learners, who constitute the majority of participants in distance study programmes, tend to be particularly sensitive to the adaptability of study pathways, clarity of expectations, continuity of feedback, and relational quality of the learning environment. The mechanisms well documented in the literature therefore offer a plausible explanation for the extremely large difference in completion rates observed in our dataset.

Our study also resonates with broader debates on *digital transformation* and *online learning* within the European educational landscape. Findings from the ECOLHE project (2023) indicate that the quality of digitally enhanced learning rises substantially when grounded in constructivist principles characteristic of SCL. ECOLHE further stresses that digitalisation of infrastructure alone is insufficient; the decisive factor is the ability of institutions to support personalised learning, interactivity, and participatory pedagogies. These insights correspond with our finding that SCL functions not merely as a pedagogical method but as a systemic environment that fundamentally reshapes learner behaviour and engagement. Similar conclusions are reached by other scholars: Rapanta (2021), for instance, notes that despite its proven benefits, SCL remains under-implemented across many European countries, even though it constitutes a critical element of strategic transformation in upper-secondary education.

The results of our study thus provide robust empirical evidence for the substantial impact of SCL on learner success. Nevertheless, despite the strong performance of SCL, it is necessary to discuss its limitations, as highlighted in several studies (Tang, 2023; Katawazai, 2021). Implementing SCL is inherently demanding and requires:

- higher pedagogical and relational competences from teachers,
- sophisticated work with heterogeneous learner groups,
- considerable preparation time for instructional activities,
- sustained organisational support and digital infrastructure.

Furthermore, SCL environments are not universally optimal for all learners. Some studies indicate that learners with low self-regulatory capacities may struggle in environments with greater structural openness or autonomy (Cheon et al., 2024). However, our findings suggest that for a large cohort of learners ($n = 1,310$), SCL led to exceptionally high completion rates, indicating that the implementation in this context was of high quality and adapted to learner needs.

The results of this study may therefore be viewed as strong confirmation of insights already described in international meta-analyses:

- SCL supports deeper learning (Loyens et al., 2022),
- increases learner engagement (Tang, 2023),
- strengthens study persistence (Murphy et al., 2021),
- significantly develops digital competences and adaptability (ECOLHE, 2023).

Our data, however, contribute an additional and important insight: they provide strong quantitative evidence of an exceptionally large difference in completion rates, a magnitude that substantially exceeds the effects typically reported in the literature. This demonstrates that, when well implemented and contextually embedded, SCL can function as a highly effective, culturally responsive, and institutionally transformative model capable of significantly enhancing the quality, efficiency, and inclusivity of upper-secondary adult education.

IMPLICATIONS

The findings of this study carry significant implications for upper-secondary education, particularly in relation to adult learners and flexible pathways of study. The results demonstrate that SCL can markedly reduce dropout rates, with direct consequences for the quality of the learning process as well as for the strategic governance of educational institutions. The implementation of SCL in practice requires the integration of several interrelated elements, which must be supported at institutional, organisational, and pedagogical levels.

At the institutional level, the study confirms that SCL is effective only when embedded within a whole-school approach rather than as an isolated initiative undertaken by individual teachers. Upper-secondary institutions that systematically integrate personalisation, continuous assessment, and active learning strategies can substantially reduce non-completion rates. This has implications not only for the quality of teaching and learning, but also for international quality standards, which for several years have identified learner-centredness as a key indicator of modern and effective upper-secondary education. In the context of adult learners, whose learning trajectories are

often shaped by non-linear life courses, institutional coherence is essential for ensuring persistence, belonging, and recognition.

At the organisational level, the findings imply the need to strengthen interaction between teachers and learners, introduce forms of tutoring, reduce excessively large study groups, and establish systems of regular study support. SCL relies on a high degree of relational contact, frequent feedback, and the provision of a structured yet flexible learning environment. These elements appear to be particularly important for adult learners, who typically combine study with employment and family responsibilities and therefore require a predictable, supportive, and communicatively responsive learning environment. The results thus highlight the importance of organisational cultures that value accessibility, transparency, and early intervention.

From a pedagogical perspective, the study underscores the relevance of active learning methods, formative assessment, and individualisation. The findings suggest that well-implemented SCL can dramatically increase programme completion because it provides support precisely where traditional approaches tend to fail most notably in promoting learner autonomy, sustaining motivation, and strengthening academic self-efficacy. The implications extend towards rethinking pedagogical competences and teacher preparation. Teachers must be equipped not only to teach but also to facilitate, mentor, and adapt instruction to the specific needs of diverse learners. In adult education, such shifts in professional roles are central to creating culturally responsive and inclusive learning environments.

RECOMMENDATIONS

The recommendations arising from the study are strongly practice-oriented and address both individual teachers and institutions as a whole. At the level of everyday pedagogical practice, it is essential to ensure clear course structuring, regular communication, and teacher availability. Teachers should establish expectations at the beginning of the term, provide consistent information regarding learner progress, and actively offer opportunities for consultation. Adult learners often require predictability, a sense of support, and the possibility of rapid assistance when facing study-related challenges.

Continuous learner support is another essential element. It is recommended that teachers make use of milestones, small task-based activities, and formative feedback that enables learners to adjust their study strategies throughout the academic year. The inclusion of peer feedback can enrich the learning process while simultaneously strengthening the learning community—an important factor contributing to learner persistence, especially in adult cohorts where social isolation is more frequent.

From the perspective of teaching methods, activating and constructivist techniques such as problem-based and project-based learning, case studies, argumentation-based discussions, and simulations appear to be particularly effective. These approaches foster learner engagement and facilitate the connection between theoretical concepts and practical application, which is highly beneficial in an andragogical context where experiential relevance has a strong motivational effect.

Digitalisation of teaching is also an important component of the recommendations. Upper-secondary institutions should support the use of learning management systems, adaptive tools, interactive platforms, and digital activities that enable learners to study at their own pace while maintaining access to continuous support. Successful implementation, however, depends on providing teachers with adequate technical and methodological support, including professional development, mentoring, or targeted training. Digital tools can significantly amplify the benefits of SCL, but only when embedded within a coherent pedagogical and institutional framework.

At the institutional level, it is necessary to develop systems that support individual or group tutoring, systematic monitoring of at-risk learners, and timely interventions. Schools should also invest in the professional development of their staff and cultivate a culture that promotes the sharing of good practice. The implementation of SCL is therefore not dependent solely on individual teachers but requires a long-term institutional strategy that addresses pedagogical, organisational, and cultural dimensions.

DIRECTIONS FOR FURTHER RESEARCH

Although the findings provide strong evidence of the effectiveness of SCL, they also open space for further research. One key area concerns the qualitative examination of mechanisms that contribute to the markedly higher completion rates. Future studies should explore the subjective experiences of learners and teachers, the nature of the support learners receive, and the forms of interaction that significantly influence their motivation, perseverance, and sense of belonging. Such an approach would enrich our understanding of SCL as a culturally embedded and relationally constituted pedagogical model.

Another promising direction lies in comparing the effectiveness of specific components of SCL. The literature describes a variety of SCL modalities, including problem-based learning, project-based learning, blended learning,

or constructivist seminars. However, there is still a shortage of empirical research comparing their relative efficacy, particularly in adult education settings. Such analyses would enable a more nuanced identification of which components contribute most to programme completion.

Longitudinal research could further illuminate the long-term impacts of SCL, not only on completion but also on professional competences, career trajectories, and lifelong learning engagement. Given the increasing emphasis on adult upskilling and reskilling within European policy frameworks, understanding these long-term outcomes is of strategic importance. Another area of interest concerns differential effectiveness: identifying which subgroups of learners benefit most (or least) from SCL would enable the development of more targeted and equitable interventions. Variables such as self-regulation capacity, workload, or socio-economic background warrant closer examination.

Finally, questions of cost-effectiveness and sustainability are particularly salient. From an economic perspective, increased interaction, smaller study groups, or expanded tutoring may entail higher short-term costs; however, reduced dropout rates may yield substantial long-term benefits by enhancing institutional stability and educational outcomes. This dimension, however, requires dedicated research, ideally incorporating mixed-methods or cost-benefit analyses.

CONCLUSION

This study provides compelling empirical evidence that the implementation of Student-Centric Learning (SCL) constitutes a highly effective pedagogical and organisational strategy within upper-secondary adult education. The comparative analysis of two large cohorts demonstrates a striking difference in programme completion: while 67.28 per cent of learners completed their studies in the traditional distance-based model, the completion rate under SCL reached 94.66 per cent, a difference of 27.38 percentage points, statistically robust ($z = 20.135$; $p < 0.001$) and unusually large by the standards of educational research. Learners in the SCL model were approximately 1.41 times more likely to complete their studies and exhibited more than eightfold higher odds of successful completion. These findings strongly indicate that SCL is not merely a methodological alternative but a transformative educational environment capable of reshaping learner persistence and academic success.

The evidence presented here suggests that SCL operates through a constellation of mutually reinforcing mechanisms, personalisation, adaptive pacing, relational interaction, continuous formative feedback, and digital support structures, which together generate a powerful synergistic effect on learner outcomes. In cultural-sociological terms, SCL appears to function not only as a pedagogical tool but also as an institutional and cultural intervention that reconfigures the learner-institution relationship. By enhancing recognition, supporting agency, and strengthening learners' sense of belonging, SCL creates conditions in which adult learners, often balancing complex social roles and carrying prior experiences of educational discontinuity, are significantly more likely to persist and succeed.

The implications for educational practice and institutional governance are substantial. The findings demonstrate that the shift to student-centred educational management can reduce dropout rates, improve the quality of learning, and support institutional resilience. At a time when European policy frameworks emphasise inclusion, lifelong learning, and learner-centred provision, SCL offers a model that aligns with these priorities while delivering measurable improvements in educational equity and retention. For institutions facing long-standing challenges related to the non-completion of adult learners, SCL thus represents a strategic avenue for organisational development and social impact.

While the study is strengthened by extensive data and rigorous analysis, it also has limitations linked to the use of aggregated datasets, the absence of individual-level variables, and differences in institutional context between the compared cohorts. These limitations underscore the need for further research exploring the micro-processes that underpin learner persistence, the differential impact of specific SCL components, and the long-term outcomes of student-centred models on career trajectories, identity development, and lifelong learning. Nonetheless, these constraints do not diminish the central finding: that well-designed and coherently implemented SCL has the capacity to significantly enhance learner success in upper-secondary adult education.

Overall, this study contributes to both pedagogical and cultural-sociological debates by demonstrating that SCL is not merely an instructional technique but a broader cultural and institutional reform with the potential to reshape educational inequalities, strengthen learner agency, and promote social inclusion. The results affirm that learner-centred approaches constitute a key pillar of modern, high-quality, and equitable secondary education for adults, offering a robust pathway towards more resilient and socially responsive educational systems.

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