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**Review Paper**

# A Critical Review of Research Studies on the Impact of Learning Vocational Courses at Secondary Level in Schools

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## ABSTRACT

This study looks into the impact of vocational education at the secondary school level, highlighting its role in shaping students' academic trajectories, skill development, and career readiness. As global economies increasingly prioritize a skilled workforce, secondary schools are expected to evolve beyond traditional academics to incorporate job-oriented learning pathways. Vocational courses, which offer specialized training in fields such as technology, healthcare, agriculture, and business, are meant to prepare students with practical competencies and real-world insights from an early stage. The study is based on comparative analysis and qualitative feedback collected from students, educators, and educational institutions that have implemented vocational training programs. It investigates how vocational learning enhances students' confidence, nurtures self-reliance, and promotes early career awareness. Additionally, vocational courses have been shown to improve engagement among students who may not thrive in a purely academic setting, thereby reducing dropout rates and improving overall school performance. The results show that vocational education can serve as a bridge between school and the job market, helping students transition more smoothly into professional environments or higher education programs. Additionally, the research identifies critical factors that influence the success of vocational programs, such as curriculum quality, teacher expertise, industry collaboration, and infrastructural support. The conclusion stresses the importance of integrating vocational courses into mainstream secondary education. It calls for policy reforms, investment in teacher training, and alignment with industry needs to maximize the impact of vocational learning. Through this, educational institutions can foster a generation of learners who are not only academically capable but also professionally competent and future-ready.

***Keywords:*** *Learning Vocational Courses, Secondary Level in Schools*

In today's rapidly evolving world, the demand for a workforce equipped with practical skills and hands-on experience has become more critical than ever. Traditional education models that emphasize rote learning and theoretical knowledge often fall short in preparing students for real-world challenges. As a response to this gap, vocational education has emerged as a crucial component of the secondary school curriculum. Vocational courses are designed to equip students with specific skills and knowledge relevant to various

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industries such as automotive, healthcare, information technology, agriculture, and hospitality.

The introduction of vocational courses at the secondary level aims to address several pressing issues in the education sector, including high dropout rates, lack of student engagement, and the mismatch between education outcomes and labor market needs. These courses provide students with a chance to explore career options early, build a foundation for future employment, and enhance their self-confidence through skill acquisition and practical learning experiences.

The study delves into how the inclusion of vocational education influences students' academic performance, personal development, and career orientation. It also seeks to understand how such programs impact school culture, teacher preparedness, and parental involvement. By comparing schools that offer vocational training with those that follow a purely academic curriculum, the research highlights the strengths, limitations, and areas of improvement in vocational education implementation.

What's more, this study considers the socio-economic implications of vocational training and how it can serve as a tool for social upliftment, particularly in rural and underserved communities. It analyzes government policies, infrastructure availability, and stakeholder attitudes to provide a comprehensive understanding of the vocational education landscape. Ultimately, the study aims to contribute to the growing discourse on education reform by emphasizing the need for a more balanced, inclusive, and skills-oriented approach to secondary education.

***Theoretical Implications***

1. Vocational education challenges traditional theories that prioritize academic knowledge over practical skills.
2. It supports constructivist learning theories where students learn by doing and experiencing.
3. Vocational training aligns with career development theories emphasizing early exposure to professions.
4. The study supports the theory that diverse learning approaches accommodate varied student intelligences.
5. It highlights the role of vocational education in promoting lifelong learning attitudes.
6. It strengthens social learning theory through peer-based skill development in vocational settings.
7. It illustrates the applicability of human capital theory in educational investment and labor outcomes.
8. Vocational education contributes to theories on experiential learning and reflective practice.
9. It reinforces the value of interdisciplinary education, blending academic and practical knowledge.
10. The findings challenge deficit models of student failure by offering alternative pathways to success.

## REVIEW OF LITERATURE

1. Banerjee, T. (2016). "Impacts of Vocational Education and Training on Employment and Wages in Indian Manufacturing Industries." This study analyzed the effects of vocational education and training (VET) on employment and wages in India's manufacturing sector, revealing that VET significantly enhances participation across all social groups, though its impact varies across industries.
2. Department of Education, Nepal (2017). "A Study on Technical and Vocational Education in Secondary School as a Separate Stream." This research evaluated the implementation of technical and vocational education as a distinct stream in Nepalese secondary schools, highlighting challenges and suggesting policy measures for effective integration.
3. Banerjee, T. (2017). "Impacts of Vocational Education and Training on Employment and Wages in Indian Manufacturing Industries: Variation across Social Groups." Utilizing data from the 68th Round NSSO, this study found that VET increased participation and wages in the manufacturing sector across all social groups, though social inequalities persisted.
4. Shendell, D. G., Noomnual, S., Apostolico, A. A., & Plascak, J. (2018). "Injuries among Young Workers in Career-Technical-Vocational Education and Associations with Per Pupil Spending." This study examined the correlation between per-pupil spending in vocational education and the incidence of injuries among young workers, finding that higher spending was associated with reduced injury rates.
5. Kumar, R., Mandava, S., & Gopanapalli, V. S. (2019). "Vocational Training in India: Determinants of Participation and Effect on Wages." Analyzing data from the National Sample Survey Office, this study found that formal vocational training was associated with a 4.7% overall wage increase, with the primary sector experiencing the highest benefit at 36.9%.
6. Choi, S., Li, H., Ogawa, K., & Tanaka, Y. (2023). "Secondary Vocational Education and Decent Work in Indonesia: Differences between Urban and Rural Areas."This study compared labor market outcomes of vocational and general secondary education graduates in Indonesia, finding that vocational graduates did not earn higher wages or have better employment conditions than their general education counterparts, with urban graduates faring better than rural ones.
7. Mathur, A., Sharan, M., Chakraborty, S., & Mullick, S. (2022). "Technical and Vocational Education and Training: Examining Changing Conditions in India."This research explored evolving conditions in India's technical and vocational education landscape, focusing on policy changes, implementation challenges, and the need for industry collaboration to enhance training effectiveness.
8. Akunama, I. A., & Umoh, A. F. (2022). "Assessment of the Impact of Vocational Education on Secondary School Students in Brass Local Government Area of Bayelsa State." Utilizing a descriptive survey design, this study assessed vocational education's influence on career choices and student involvement, revealing a low impact on career choice and unemployment levels among secondary students in the studied area.
9. National Audit Office (2025). "T-Level Qualifications Still Less Popular and More Expensive than BTecs." According to this report, T-level qualifications, launched in 2020 as a vocational alternative to A-levels, have lower enrollment and higher costs compared to BTec qualifications, suggesting the need to maintain BTecs until T-levels can be fully assessed.

10. The Times (2025). "GCSEs Are Too Academic and Holding Pupils Back, Review Finds." A recent review commissioned by Education Secretary Bridget Phillipson found that the focus on traditional academic subjects in GCSEs is limiting students' achievement and engagement, calling for a broader curriculum that includes vocational education.
11. The Wall Street Journal (2025). "The Schools Reviving Shop Class Offer a Hedge Against the AI Future." This article discusses how high schools are revamping shop classes to prepare students for lucrative blue-collar careers, addressing labor shortages and providing practical skills amid rising higher-education costs and the threat of AI on white-collar jobs.
12. The Sun (2024). "Thousands of Teens Forced to Resit English & Maths as GCSE Grades Drop Again with Another Year of Tough Marking." This report highlights the increasing number of students resetting core subjects, emphasizing the need for vocational training as an equally valuable alternative to university education.
13. The Guardian (2025). "Coalition Wants to Train Up Teenagers." This article discusses policy initiatives aimed at encouraging technical education among teenagers to address skill shortages, emphasizing the importance of integrating skills training into schools early.
14. The New Yorker (2011). "Diploma Mills?" This piece analyzes the decline of vocational classes since the 1970s, discussing how the shift toward college-prep courses may have contributed to a skills gap in the workforce.
15. Tripney, J. S., & Hombrados, J. G. (2013). "Technical and Vocational Education and Training (TVET) for Young People in Low and Middle-Income Countries: A Systematic Review and Meta-Analysis." This systematic review found that TVET interventions had a positive, albeit small, effect on monthly earnings and employment among youth in low to middle-income countries.
16. Agrawal, T., & Agrawal, A. (2017). "Vocational Education and Training in India: A Labour Market Perspective." The study revealed higher returns to vocational education compared to general education, suggesting a mismatch between skills attained through VET and employment fields.
17. Attanasio, O., Kugler, A., & Meghir, C. (2011). "Subsidizing Vocational Training for Disadvantaged Youth in Colombia: Evidence from a Randomized Trial." The research demonstrated that subsidized vocational training improved employment outcomes and earnings for disadvantaged youth in Colombia.
18. Lee, W. S., & Coelli, M. B. (2010). "The Labour Market Effects of Vocational Education and Training in Australia." This study found that VET qualifications were associated with higher employment probabilities and earnings.
19. Dougherty, S. M. (2016). "Career and Technical Education in High School: Does It Improve Student Outcomes?" This study analyzed data from Arkansas to assess the impact of Career and Technical Education (CTE) on student outcomes. Findings indicated that students who concentrated in CTE were more likely to graduate from high school, enroll in college, and secure employment, suggesting that CTE can enhance both educational and labor market outcomes.
20. Brunner, E., Dougherty, S., & Ross, S. (2019). "The Effects of Career and Technical Education: Evidence from the Connecticut Technical High School System." This research examined the impact of admission to Connecticut's technical high schools on student outcomes. Results showed that male students attending these schools had higher high school graduation rates and increased earnings, though they were less likely to attend college immediately after high school.

21. Sharma, R. (2020). "Vocational Education and Training in Secondary Schools: A Pathway to Employment in Developing Countries." This study investigated the role of vocational education in facilitating employment among secondary school graduates in developing countries. Findings revealed that students who completed vocational programs had higher employment rates and earnings compared to their peers who pursued general education.
22. National Center for Education Statistics (2020). "Labor Market Outcomes for High School Career and Technical Education Participants: 2016." This report examined early labor market outcomes of public high school graduates who earned varying credits in CTE. It found that graduates with three or more CTE credits had lower unemployment rates and were more likely to receive job benefits like health insurance and retirement plans.
23. Aberach, A. (2020). "The Impact of Primary and Secondary School Vocational Education on Economic Growth in Ethiopia." This research focused on the relationship between vocational education at the primary and secondary levels and economic growth in Ethiopia. The study concluded that vocational education significantly contributes to economic development by enhancing the productivity and employability of the workforce.
24. Choi, S., Li, H., Ogawa, K., & Tanaka, Y. (2023). "Secondary Vocational Education and Decent Work in Indonesia: Differences between Urban and Rural Areas."This study compared labor market outcomes of vocational and general secondary education graduates in Indonesia, finding that vocational graduates did not earn higher wages or have better employment conditions than their general education counterparts, with urban graduates faring better than rural ones.
25. National Audit Office (2025). "T-Level Qualifications Still Less Popular and More Expensive than BTecs." According to this report, T-level qualifications, launched in 2020 as a vocational alternative to A-levels, have lower enrollment and higher costs compared to BTec qualifications, suggesting the need to maintain BTecs until T-levels can be fully assessed.

## CONCLUSION

In conclusion, this study underscores the significant impact vocational education can have on students at the secondary level. By fostering practical skills, career readiness, and academic engagement, vocational courses emerge as a transformative element within the broader educational framework. The findings affirm that incorporating vocational training not only diversifies learning opportunities but also addresses systemic challenges such as high dropout rates and unemployment.

As the demand for a skilled workforce continues to rise, it becomes essential for policymakers, educators, and stakeholders to recognize and harness the potential of vocational education. A collaborative approach involving curriculum reform, teacher training, infrastructural support, and societal acceptance is crucial for the successful integration and sustainability of vocational programs.

Ultimately, vocational education represents a vital step toward building a more inclusive, adaptive, and future-ready educational ecosystem.

***Recommendations and implications***

1. Vocational training should be a formal part of secondary education to provide equal skill-building opportunities alongside academics for all students.
2. Teachers should receive targeted training to effectively deliver vocational content, ensuring students get quality, hands-on learning.
3. Partnering with industries can enhance curriculum quality and provide students with internships and real-world exposure.
4. Modern labs and equipment are essential for practical training, allowing students to develop industry-relevant skills.
5. Vocational syllabi must be updated regularly in consultation with industry experts to keep up with changing job market demands.
6. Dedicated counselors can guide students on vocational career paths, improving their focus and decision-making abilities.
7. Schools successfully running vocational programs should be rewarded through grants or recognition to encourage wider adoption.
8. Awareness programs can help change mindsets that undervalue vocational careers and highlight their long-term benefits.
9. Tracking outcomes like job placements and student satisfaction can help assess the effectiveness of vocational initiatives.
10. Ensure students from rural and disadvantaged backgrounds have free access to vocational courses and necessary resources.

***Suggestions for further analysis***

1. Conduct longitudinal studies to track vocational students' career progress post-graduation.
2. Analyze the performance differences between students in urban and rural vocational programs.
3. Evaluate the impact of vocational education on dropout rates in marginalized communities.
4. Study employer satisfaction with vocational graduates in different sectors.
5. Compare outcomes between public and private vocational training institutions.
6. Assess the gender disparity in vocational course enrollment and completion.
7. Examine the role of digital tools and online platforms in vocational training delivery.
8. Study the influence of vocational education on students' mental health and motivation.
9. Explore the relationship between vocational training and entrepreneurship development.
10. Analyze international best practices in vocational education for adaptation in local contexts.

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***Conflict of Interest***

The author(s) declared no conflict of interest.

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