Students’ perception of labor market success in vocational education and training

The purpose of the study

Throughout Europe, a defining goal when organizing vocational education and training is to support a successful transition to the labor market (Cedefop, 2020). However, there needs to be a unified position to interpret and evaluate success. A review of the scientific literature reveals a multitude of frameworks for defining success. In a philosophical approach, scientific assessments of success can differentiate between accomplishments attributable to underlying talent and those solely attributable to luck (Greco, 2009). A social science approach examines a person’s success from the community's point of view, based on which success is interpreted as a multidimensional phenomenon embedded in culture, the judgment of which can only be determined about other community members (Romney et al., 1979). According to the definition of success proposed by Seligman (2002), a pioneer in positive psychology, success manifests itself in positive emotions and attitudes, which means our satisfaction with our current situation and our abilities. In this study, we take the latter approach primarily as a basis when discussing the nature of success. The interpretation of success depends on the context, which refers to the circumstances of achieving success and the fact that success can have multiple manifestations (Usiai, 2013). Our research deals with a smaller slice of success, the perception of professional success. Veroszta (2010) stated in his study examining the labor market career of graduates that there can be many interpretations of success, so the factors influencing success interpreted in different approaches will also be different. This study uses the terms labor market success and professional success as synonyms. The main question of our research is how students in vocational education and training think about professional success and how it relates to their work experience and parental background. The research clarifies how vocational students define professional success. It reveals a surprising disconnect between objective factors (e.g., salary) and subjective factors (e.g., enjoyment) in their perception of success.

Research examining the perception of students’ labor market success is paramount, particularly considering the pervasive skill mismatch issue highlighted by Cedefop’s introduction of the concept of skill mismatch (Cedefop, 2015). This substantial skills gap is evident in the fact that 45% of European workers are currently employed in positions that do not align with their skills (Cedefop, 2015). VET programs have the potential to play a pivotal role in bridging this skills gap by equipping students with the specific skills required for the labor market. Investigating students' perceptions of success is crucial to understanding their expectations in the labor market and, therefore, addressing this mismatch. The research’s relevance is further underscored by the finding that parental social status concerns can deter their children from pursuing vocational education (Abrassart & Wolter, 2020). Examining student perceptions can offer valuable insights into potential biases, thereby enhancing strategies to effectively promote the role of VET in achieving successful careers. In conclusion, studying students’ perception of labor market success in VET is a timely topic with significant implications for education policy, workforce development, and social mobility.

Theoretical frameworks for researching success in the labor market

The assessment of success in the labor market is an interdisciplinary field of research. Based on the literature, social psychology can find its questions in just as much as economics, sociology, or even education. The approach to the concept of work itself has been and continues to be shaped by social

1 Supported by the ÚNKP-22-4 New National Excellence Program of the Ministry for Culture and Innovation from the source of the National Research, Development and Innovation Fund.
and economic changes (Pahl, 1980). In line with this, individuals’ work-related values and attitudes also show a shift.

Success in the labor market is generally defined as an individual’s hierarchical advancement in his occupation (Bass, 1981, cited in Gattiker & Larwood, 1986). Previous research typically examined the phenomenon using objective and subjective approaches. While in the case of objective success, clearly definable factors such as salary or promotion usually appear, subjective success includes the employee’s experience, attitudes, and feelings (Heslin, 2005). When examining work-related attitudes and success, it is essential to point out that these concepts – especially when judging subjective success – may differ from society to society and culture. Based on Ipsos’ 2020 global research, the importance of work in people’s lives varies (Ipsos, 2020): according to the results, in most countries, the proportion of those who consider work necessary in their lives is over 90%, while in Germany (79%) and the Netherlands (81%), the proportion of those who agree with this is lower. The standards of working conditions also differ from country to country; in Turkey and Chile, 50-60% of employees work more than 48 hours a week, while in EU member states, only 15% are involved (Eurofound & ILO, 2019). Someone for whom overtime is part of everyday life will experience job satisfaction differently than someone with different work expectations. Accordingly, success experienced in work may also differ in individual countries.

Heslin (2005) prepared a comprehensive literature summary on the topic of success in the labor market and found that in the research history, easily measurable outcome indicators were mainly used to describe success (e.g., salary and promotion), while subjective factors with a smaller amount of research history have only appeared in surveys in recent decades, which can best be captured in the degree of satisfaction with work and career. One of the limitations of objective indicators is that they are influenced by factors independent of the individual, so they are less suitable for capturing the essential dimension of success (Campbell et al., 1970, cited by Heslin, 2005). These indicators are influenced by external factors such as the structure of the given society, the tax system, or even the status and prestige of certain occupations (Hollenbeck et al., 2003, cited by Heslin, 2005). In the history of research aimed at the relationship between career and success, the combined examination of objective and subjective factors dominated over time. When measuring subjective success, Heslin (2005) highlights that the level of job satisfaction alone is insufficient to describe the dimension of success. Knowing the perception of success is also crucial to show the degree of an individual’s prosperity and relationship to his work.

Regarding the relationship between objective and subjective success, the results show that while 20-40% of the respondents proved to be highly successful based on the various objective indicators, half of the sample felt that they were successful in their career based on the subjective, self-reported scale (Friedman & Greenhaus, 2000). Heslin (2005) reached the same conclusion in his study: objective and subjective success do not necessarily go together. It is advisable to examine the two approaches together to reduce distortions arising from social conditions and individual (subjective) judgment.

Research Background on the Study of Labor Market Success

The concept of success in the labor market appeared in scientific works in the early 1900s. Hoyt (1965) refers to a 1917 result, which examined the success of young people who graduated from college, where a pre-selected jury of alumni members determined who was considered successful among the graduates. Although Hoyt did not consider this study to be reliable from a methodological point of view, it may still be the first scientific work that dealt with the concept of work and success in some way. In the 1930s, several studies were conducted on the topic of successful employment, which primarily used the level of salary as a measure of success in an objective approach (Heslin, 2005). Hughes (1937) refers to Karl Mannheim’s 1930 paper, according to which a successful career can only be achieved by filling official positions, or by advancing through the ranks. A few years later, Dewey (1941) already writes that an integral part of the general satisfaction with life is the enjoyment of the work we do, which represents a clear shift from the concept previously examined with the most
objective standards, and he also emphasizes the importance of abilities and interests in connection with success on the labor market. Dewey found that in addition to school performance and test scores, interest, motivation, and reliability can predict a successful career. He also wrote about the importance of choosing a career, choosing a profession that matches your abilities and interests to achieve later success. He found that the measure of income alone cannot describe the concept of success and drew attention to the different natures of different occupations. In his literature review, Hoyt (1965) objected to the same about previous research, indicating that regional and scientific differences make it difficult to judge success by income.

Among the research antecedents, we find studies that interpret labor market success as a complex phenomenon. Thorndike (1963) used both objective and subjective indicators to measure success, and he also considered the nature of different occupations, which he tried to capture with expert coding. In addition to income, the indicators of success included self-reported success, job satisfaction, and horizontal and vertical mobility. A 1964 study (Price et al., 1964) measured medical excellence by nearly 200 different factors, including scientific excellence, time spent with patients, and amount of professional training. However, this study looked at a very different aspect of success and focused primarily on performance-based excellence. Hoyt’s (1965) conclusion, based on the antecedents he processed, is that school results only moderately determine success in adulthood and that there is a great need to clarify and conceptualize concepts in this area. Gattiker and Larwood (1986) attempted to grasp the concept of success about the goals set and the successes achieved. According to his research, successful careers can be achieved by those who are committed to their work, work hard, have authority in their workplace, perform tasks that help them develop the skills they need for their work, and pay a lot of attention to building relationships both inside and outside the workplace.

Research Methodology

The central question of our research is how students in vocational education and training think about professional success and how it relates to their work experience and family background. This study utilizes a secondary analysis of the National Office for Vocational Education and Training and Adult Learning (NSZFH)’s 2022/23 Graduate Tracking Survey. The survey was designed to understand why students choose vocational education, their satisfaction with the training, and their aspirations after graduation. Data collection occurred online through a self-administered questionnaire distributed via the central educational system between April and May 2023. This Analysis focuses on the responses of 10,097 final-year vocational students. The Vocational Education Information System provided the sampling frame. We employed a convenience sample with a high coverage rate to reach as many final-year students as possible. While the questionnaire was available to all students, completion relied on individual willingness to respond, resulting in a 16% response rate. It may introduce some limitations in the generalizability of the findings to the entire population. We compared the sample demographics (gender, age, school type, training type, and sector) to national data on vocational students and found them representative.

Three hypotheses were formulated in line with the research question:

- **H1:** Objective factors are more important than subjective factors in determining vocational education students’ perceptions of professional success.

  This hypothesis is based on the assumption that objective factors, particularly financial security (high salary), play a more prominent role in students’ perceptions of success compared to

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2 The methodological description was guided by the "Methodology" chapter of the National Report on Graduate Tracking Report prepared by the National Office for Vocational Education and Training (NSZFH, 2023). 
https://www.nive.hu/Downloads/palyakovetes/EX.php?f=Orszagos_raport_a_szakkepzesben_tanulok_palyakoveteseler.pdf (Downloaded: 2024.04.12.)
subjective factors like work satisfaction. It aligns with previous research identifying financial factors as a critical determinant of overall job and life satisfaction (Kiss, 2011; Hajdu & Hajdu, 2014; Virág, 2023).

- **H2:** Students with prior work experience through dual training programs will emphasize subjective success factors more than those without such experience. This hypothesis stems from the notion that practical work experience might heighten students' value for enjoying their work and witnessing its impact. Exposure to the realities of the workplace could shift their focus from solely objective factors to subjective aspects of work satisfaction (Mortimer & Lorenzo, 1979; Hofman et al., 2021).

- **H3:** Students with at least one parent holding a higher education degree will attribute greater importance to subjective success factors, while objective factors are more important for students with lower parental education. This hypothesis is based on the potential influence of parental education on students' perceptions of success, as former studies reported a significant effect of social background on student's perception of employment (Sallay, 2003; Czirfusz & Lénárd, 2023). It suggests that students from families with higher education backgrounds might emphasize intrinsic factors like work satisfaction and personal fulfillment more than those from families without such exposure.

Considering the findings of Hesling’s (2005) previous studies, a five-point Likert scale was constructed to measure both objective and subjective success factors among respondents. The main question was formulated: What makes you feel successful at work?

- Applying what I learned in school. This factor emphasizes the importance of work relevance to one’s education.
- Making much money. This factor highlights the significance of financial compensation.
- Seeing the impact of my work. This factor focuses on the tangible outcomes of one's work.
- Receiving recognition and praise at work. This factor underscores the value of external validation and appreciation.
- Having a flexible schedule. This factor emphasizes autonomy and control over one’s work hours.
- Enjoying what I do. This factor focuses on the satisfaction and fulfillment derived from work.
- Being better at my job than my coworkers. This factor highlights competitiveness and the desire to excel.
- Having time for friends and leisure outside of work. This factor emphasizes work-life balance and personal well-being as an objective dimension.
- Knowing that I can advance to a better position in the future. This factor focuses on career aspirations and growth potential.

Subjective and objective factors were identified by confirmatory factor analysis, followed by hypothesis testing. Due to the large sample size, the effect sizes associated with them were also calculated.

**Results**

This section delves into how vocational education students conceptualize professional success and how it relates to their work experience and social background.

**The nature of objective and subjective factors**

Employing confirmatory factor analysis\(^3\), the study revealed a clear distinction between objective and subjective interpretations of success based on student responses. In this sample, RMSEA=0.07

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\(^3\) Analysis was conducted using the JASP Lavaan package with an ML estimator.
indicates an acceptable fit (Fabrigar et al., 1999), while CFI=0.98 and TLI=0.96 indices a good fit (Bentler, 1990). This suggests that students perceive success through two distinct lenses.

Employing fit indices, the following three items were eliminated from the initial nine-item survey:
- Applying what I learned in school.
- Having a flexible schedule.
- Being better at my job than my coworkers.

The removal of these items was guided by statistical Analysis, which indicated their misfit within the established conceptual framework of success perception among vocational education students.

**Table 1. Descriptive statistics and factor loadings for items of 'What makes you feel successful at work?' (N=10097)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Factor Loadings*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applying what I learned in school.</td>
<td>1</td>
<td>5</td>
<td>3.12</td>
<td>1.314</td>
<td>na**</td>
</tr>
<tr>
<td>Making a lot of money.</td>
<td>1</td>
<td>5</td>
<td>4.08</td>
<td>1.060</td>
<td>.667</td>
</tr>
<tr>
<td>Seeing the impact of my work.</td>
<td>1</td>
<td>5</td>
<td>4.40</td>
<td>.940</td>
<td>.339</td>
</tr>
<tr>
<td>Receiving recognition and praise at work.</td>
<td>1</td>
<td>5</td>
<td>4.27</td>
<td>.984</td>
<td>.430</td>
</tr>
<tr>
<td>Having a flexible schedule.</td>
<td>1</td>
<td>5</td>
<td>4.07</td>
<td>1.014</td>
<td>na**</td>
</tr>
<tr>
<td>Enjoying what I do.</td>
<td>1</td>
<td>5</td>
<td>4.55</td>
<td>.834</td>
<td>.389</td>
</tr>
<tr>
<td>Being better at my job than my coworkers.</td>
<td>1</td>
<td>5</td>
<td>3.55</td>
<td>1.217</td>
<td>na**</td>
</tr>
<tr>
<td>Having time for friends and leisure outside of work.</td>
<td>1</td>
<td>5</td>
<td>4.31</td>
<td>.967</td>
<td>.530</td>
</tr>
<tr>
<td>Knowing that I can advance to a better position in the future</td>
<td>1</td>
<td>5</td>
<td>4.12</td>
<td>1.043</td>
<td>.469</td>
</tr>
</tbody>
</table>

* All factor loadings shown are significant (p<.001).
**Items were excluded from CFA.

Students placed the greatest importance on factors related to enjoying what they do (M = 4.55), followed closely by financial security (M = 4.08) and having a job with a good work-life balance (M = 4.07).

The objective dimension of success encompasses factors students prioritize, reflected in an average factor score of 2.31 (SD = 0.45). These factors include:
- Making a lot of money.
- Having time for friends and leisure outside of work.
- Knowing that I can advance to a better position in the future.

These three objective success items were analyzed with Cronbach's alpha, yielding a coefficient of $\alpha=0.70$. This value indicates an acceptable level of internal consistency among the items.

The subjective dimension of success, with an average factor score of 1.69 (SD = 0.30), highlights factors students value intrinsically. These include:
- Seeing the impact of my work.
- Receiving recognition and praise at work.
- Enjoying what I do.

Like the objective success items, the remaining three subjective success items were also analyzed with Cronbach's alpha. This analysis yielded a coefficient of $\alpha=0.82$, which indicates a high level of internal consistency among the items.

The analysis of these six items revealed the multifaceted nature of professional success for vocational education students, highlighting the interplay of objective and subjective factors. The results of reliability analysis also suggest that they measure two separate underlying constructs (objective and subjective success) effectively.
Prioritization of objective success
Based on the comparison of the two types of success indicators, the role of statements related to objective success (M=2.31, SD=0.45) is statistically more significant compared to subjective elements (M=1.69, SD=0.30), (t(10096)=178.90, p<0.001). The effect size, as measured by Cohen's d, was d=1.78, 95% CI [1.75, 1.81], indicating a large effect according to Cohen's (1988) benchmarks. This implies that financial security, career advancement, and work-life balance are more important considerations for students than subjective factors like work satisfaction. Based on the t-test, the first hypothesis was supported.

Work experience and professional success
Interestingly, the study found no significant difference in how students perceive objective success based on participation in dual training programs (work-integrated learning) compared to traditional programs. The analysis of objective success did not reveal a statistically significant difference between students with and without prior work experience in dual education (t(10095) = 0.09, p=0.272). This suggests that prior work experience may not have a significant impact on students' perceptions of objective success factors like financial security, career advancement, and work-life balance. The calculated effect size, Cohen's d, was d=0.02.

T-test revealed a statistically significant difference between the means of subjective success scores for students with and without prior work experience (t(10095) = -3.77, p<0.001). However, the calculated effect size (d=0.08, CI 95% [0.04, 0.12]), suggests a very small difference between the two groups according to Cohen's (1988) benchmarks. While there's a statistically significant difference, the magnitude of the effect is minimal. It's important to consider the practical implications of this finding. Despite the statistically significant result, the small effect size suggests that there's a minimal practical difference in subjective success scores between students with and without prior work experience. Based on the results, the second hypothesis was supported, although there's a minimal difference between the two groups.

Parental background and success perception
Students with at least one parent holding a higher education degree attributed greater importance to subjective success factors (t(10095)=-2.59, p=0.005). This finding suggests a potential link between parental education and the emphasis placed on intrinsic work satisfaction. However, the effect size, Cohen's d (d = 0.064, CI 95% [0.02, 0.11]), is considered a small effect. This suggests that while a link exists, the magnitude of the difference in emphasis on subjective success factors between the two groups is relatively weak.

Notably, no significant difference was found in the way these students perceive objective success factors (t(10095)=−1.88, p=0.059, d=0.05).

The hypothesis predicted differences in subjective factors, and the results showed a statistically significant association (although weak) with parental education. The lack of a significant difference prevents us from confirming or rejecting the hypothesis about objective factors.

In conclusion, these findings highlight the multifaceted nature of professional success for students in vocational education. While objective factors like financial security and advancement are prioritized, this study also suggests potential nuances in subjective perceptions based on work experience and parental background.

Summary
This study investigated how vocational education students perceive professional success and how it relates to their work experience and social background.

Key findings of the study reveal that students distinguish between objective and subjective success factors. Objective factors (financial security, career advancement, work-life balance) are considered more important than subjective factors (work satisfaction, recognition). Students with prior work
experience through dual training programs value subjective success factors more. Furthermore, students with at least one parent holding a higher education degree attribute greater importance to subjective success factors. Although significant results were obtained, the effect was small in terms of prior work experience and parental background.

The findings underscore the multifaceted nature of success in vocational education, emphasizing the need to prepare students for a holistic understanding of professional achievement. While financial security and career advancement remain paramount, vocational programs can be further enriched by emphasizing work satisfaction and intrinsic motivation.

**Bridging the gap between research and practice**

These research findings go beyond theoretical understanding and offer practical curriculum development and career counseling guidance. Vocational programs can equip students with the necessary knowledge and tools by translating research into actionable strategies. This empowers them to navigate the complexities of a successful career, which encompasses financial security and personal fulfillment.

A key strategy is cultivating vocational self-awareness among students. It can be achieved through integrating financial literacy and career planning modules into the curriculum. Resources and workshops on financial management and budgeting can also help students internalize their vision of a successful work transition.

Furthermore, it is crucial to emphasize employee well-being during school classes, dual training, and career counseling programs. It promotes a healthy work-life balance across different career paths, ultimately supporting students in achieving objective success factors.

Teachers and career counselors play a vital role by guiding students in exploring their suitability for various professions. By considering their interests, skills, and values, educators empower individuals to pursue fulfilling and meaningful career trajectories leading to job market success.

Promoting mental health and stress management resources for students transitioning to work fosters a conscious start with a deeper understanding of career success. It is essential to highlight that a perfect work-life balance is only sometimes achievable. There will be times when work demands more attention. However, helping students learn to manage priorities, set boundaries, and seek support when needed will ultimately lead to greater self-awareness for career success.

**Limitations and further research opportunities**

While valuable for its insights into student perceptions through quantitative data, the present study has limitations. The structured nature of this data may miss the subtleties and complexities of how students define success. Additionally, the research is specific to the Hungarian social and cultural landscape. Romney et al. (1979) highlight the cultural context of success, suggesting that these findings may not translate directly to other countries.

Future research can address these limitations by using mixed-methods approaches. As qualitative data sources, in-depth interviews or focus groups can provide a richer understanding of student perceptions. This can reveal how these perceptions translate into job choices and career satisfaction.

A comprehensive understanding of success is crucial to effectively examining the school-to-work transition. As research suggests, success has multiple interpretations. Therefore, when exploring success rates in this transition, future studies should consider and address this multifaceted nature.

**References**


