



# Is Job Shadowing a Panacea for Educational Drop Outs?

Ashok Chopra<sup>(✉)</sup> and Satish Menon

Management and Commerce, Amity University Dubai International,  
Academic City, Dubai, United Arab Emirates  
{achopra, smenon1}@amityuniversity.ae

**Abstract.** A major concern that is griping the world over is the rise in the number of educational dropouts. This has resulted in impacting society, institutions, Government, and Students themselves. This paper investigates the issues relating to dropouts and also looks at how the pieces of evidence are co-related. It is observed through the findings of a research work carried out in USA and UAE (Sample of eighty five students at each location using multi variate tests analysis) that students without a strategic perspective as well as a non-commitment to education end up having a very poor academic performance. This has a knock-on impact, not only in terms of completion success rates but also demonstrating a high risk of discontinuing or abandoning the degree. Therefore academic performance along with the aspect of practical/experiential learning is a key variable in getting the students to decide their future course of action, which is either to stay or drop out. This paper has adopted a three steps approach in its methodology to identify factors leading to high educational dropouts. They being, student-oriented factors, institution oriented factors, family-oriented factors, community, and social media-oriented factors. Articles were examined based on open coding content analysis to further assess the quality of the facts and data provided. The study does finally extend to how practical approaches like job shadowing could be considered to reduce the dropout rates at every level by understanding the benefits it has to offer.

**Keywords:** Educational drop outs · Job shadowing · Academic performance · Student's dropout factors · Functional & life skills · Economic impacts of students dropouts · Panacea for educational dropouts · Prevention through technology usage

## 1 Introduction

Job shadowing is a career exploration activity where one gets to be with a business professional and understand everything about a job, by being with the person all through a workday. It would be connected to a related line of interest. Though this is temporary, this helps the student to understand the dynamics of a job as also the have the platform to probe and enrich oneself by getting to be aware of the Knowledge, skills, and abilities that are required for a particular job. In effect you would gain insight into effective communication, self-understanding, problem-solving, and above all, demonstrating

professionalism. This further provides or opens up to building networking opportunities and be aware of current trends and job skills that are required, to enable you to make informed decisions about your career. It provides that competitive edge.

It is in this background that we are looking to address the issue of educational dropouts and whether Job Shadowing can be a viable solution to this problem. Dropouts are on account of various perspectives like academic failure, non - continuance, non-completion, the pursuit of another subject or another university, financial difficulties, family, community, and personal related issues. Some of these are attributed to voluntary whilst others could be involuntary departures.

In a very dynamic and changing business market, success depends on the quality of human resources and therefore the need for a future is driven development objective. Development is an institutional activity to enhance key skills and abilities. To Ensure professional continuity and business continuity, student's engagements such as job shadowing is vital to bridge that talent gap. From an institutional and governmental perspective, the student attrition rate is a commonly applied term, whereas retention and graduation rate often indicate positive outcomes. Hence, drop out behavior has to be viewed seriously, as it's on account of various aspects that have been at play and before and within the university. And therefore dropouts have to be independently evaluated within the perspectives that are causing them. There has to be a close examination at every level, be it Family, University, Community, Student, Government, and at an institutional level as there are socio-economic impacts. The dropout Process model below explains well various stakeholders and steps to make stakeholders take necessary prevention.

Relevant stakeholders after knowing the process should also know the advantages and disadvantages of Job shadowing at what is at stake (Table 1).

**Table 1.** Advantages and disadvantages of job shadowing

Advantages or benefits of job shadowing	Cons or disadvantages of job shadowing
Employer's behavior	Lack in identifying
Work environment	Long working hours
Knowing the thought process	Workplace setup
Mode of interaction	Prior education
Unnecessary things	Clashing schedules
Open ended study	Language pattern
Observations regarding Future	Lack of motivation
First Hand Information	Stress
Making profiles	Lack of comfort
More open nature	Lack in sharing information

## 2 Research Objective

This is an exploratory paper trying to establish a relation between Job Shadowing and its aiding recovery in student dropouts. To do so researcher first brings out all relevant and important factors responsible for dropouts, draws data from literature and secondary sources to bring correlation of dropouts with job shadowing.

## 3 Literature Review

Students who drop out of university without graduating and acquiring a degree create a significant impact on society, family, community, institutions, and individuals. [1]. According to [2] there is also a psychological effect on the individual, apart from wasted time, mid-life marginalization, and money. The effect of these scars could potentially have negative labor market outcomes. These dropouts can also cause negative publicity for the institutions and can have a direct fall out in terms of future recruitment initiatives. Further elaborated that these dropouts are also on account of teaching deficiencies and support that is prevalent in institutions, as construed by students. The societal implication of dropouts is also seen where tax payers' money gets wasted and creates a block for other students to obtain a place in the university. This has created a policy dilemma for governments and institutions around the world, in terms of retention to negate the negative consequences of such dropouts for all the concerned stakeholders.

This was further elaborated by [3, 4] where this was taken as a failure and a waste of resources not only at an individual level but also at a personal level. The implication at the institutional level meant the inefficient use of tax payer's money which has a knock-on effect on society not benefitting from it. At the individual level, it can be taken as a poor investment on account of non – completion. This has elements of both direct and indirect costs (fees, books, supplies, and living costs). Earning from labor markets too takes a beating on account of opportunity cost lost.

Even though there have been extensive studies on school and college dropout, a largesse of the research has focused on premature school exits [5, 6]. This suggests that a significant leakage in the pipeline to completion that has been overlooked in many places. It has been further evidenced by [7] that almost close to 40% of college students leave after the second year of college and among this group are students who have completed most of the credits that are needed to graduate before withdrawing.

Institution-related risk factors associated with dropping out include the absence of clearly defined objectives, restriction in the offer of determining degrees, etc. Another large group of causes related to drop out point to the family-related risk factors such as social origin, socioeconomic status, family turmoil [8]. Low effective support and income, low cohesion among family members, and a high rate of conflict fuel the family turmoil and increase the drop out probability [9].

There is still a perceived gap in our knowledge of educational dropouts at a global level. The determinant factors being looked at being probably very limited. This stems from the fact firstly, that a vast majority of the literature came from the US and Europe, with very few comparative studies being undertaken from non-high income countries. Secondly, there has been a dearth of longitudinal data, and as such only a few studies

have examined the risk antecedent of university dropout across time. In essence, most researches in this area have tended to focus on whether students moved out or not without taking the route/trajectory of dropout into consideration [10]. Third, studies examining trends of dropouts are looking at an intention to drop out rather than actual drop out. Fourth, existing studies insist there are several interplaying factors at play for such student dropouts [11]. There has also been a line of thought coming through from other reviews on research, which is, the predictive power of each risk antecedent rather than their cumulative effect on dropout over time. Thus all the more important to examine the cumulative risk [12, 13]. A student experiencing multiple risk factors should therefore be at a higher risk of dropout than a student experiencing just one of these factors.

Therefore, Job shadowing became one of those possible avenues to the above-stated predicament being faced by multiple stakeholders. It is a career exploration activity where students can spend time with someone at work to learn what it is like to do that job daily. It is an important link in making key career connections and a rewarding one at that [14]. It provides an avenue for students to align their classroom experiences to the workplace and thereby gain valuable practical knowledge. Internship, being one of those viable options [15] found internship was a good platform for students in making their career transitions. They also discovered that investing quality time in preparing the students for the interview through a well-designed curriculum and coursework helped to create better chances of internships. Job shadowing also creates work-based learning and gets the student to get a feel of “what it is whilst on a job” and be in that job [16].

Through this students can get a sense of the requisite competencies required for a job and that can create a sense of societal conformity—people helping people [17].

The student who pursued a field of medicine or doctor found that observation of practicing doctors made a huge difference in their learning and understanding of the practical aspect of the field. Working along with professional removed the stereo feeling student had about industry and profession. They determined that the time spent in observation was a vital and important mechanism for medical students to learn the history, practice, and skill required as medical professionals [18] found that experiential learning associated with job shadowing was a more powerful intervention as compared to just using the case study approach to things. It allows the students to connect their classroom activities with their future career aspirations [19]. This has proved to be important and valuable, as it further enhances and contributes to a better understanding of what to expect once they graduate and begin their professional journey.

Alternatively teaching fraternity can also practice innovative and collaborative learning approaches to prevent Job Shadowing [20] Job shadowing can also be considered a career investment that opens doors for future employment [21] and dropouts chose employment over an education [22].

## 4 Research Methodology Adopted

Step 1: Involved identifying appropriate publications and application of perfect screening criteria. The screening criteria itself peeps through title and current environmental factors. The same ensures that only right and quality papers are identified and are included for review. In achieving the previous step, conference articles, explanation, or comment

added to a text or diagram, book reviews, and operations papers were not considered in selection criteria. It was ensured only quality and reputed indexed journal articles and top publication book chapters only were part of the selection. Rather publications that covered topics like job shadowing, Non-Completion in higher education, Academic Vulnerability, adults with/without a degree, job shadowing management, and University's dropouts were considered. A selected journal may not be from a reputed publication was considered. It was ensured that relevant selected paper with word student dropout had been part of a selection basis. The steps mentioned previously led to the selection of forty articles for further treatment and analysis.

Step 2: involved higher benchmarks thus articles/papers which further involved terms like factors, environment, correlation of dropouts, a framework of dropouts, white paper, in-depth analysis, survey dropout, and business, relevant stakeholders were part of screening. This criterion eliminated fifty percent of selected articles of step 1. The retained articles were taken into the third step.

Step 3: marathon filtering criteria coupled with elimination and selection along with a discussion with experts, policymakers only twelve, articles were selected for final consideration. At this stage, secondary data was also drawn from cited references. One to one in-depth discussion with industry/subject matter experts helped to a great extent in including two additional articles/papers for providing much-needed information and contribution to the existing battery of gathered knowledge. This realistic analysis of literature thus got us fourteen papers/articles. To further search for selected articles, an open coding content analysis technique was undertaken. Using this technique, notes and headings were thus written in the text based on their association with the research focus and objectives. While leading on reviewing the studies, it was acknowledged that each study can contribute to several different headings.

## 5 Main Analysis

It is of paramount importance to understand the factors that lead to student dropouts. Various factors are affecting student dropout rates. These can be classified into Student Oriented, Institution Oriented, Family Oriented, Community Oriented, and Social Media Oriented. Let us first look at student-oriented as a factor.

### Student Oriented Factors

The majority of student-related factors include behavior, disciplinary issues, academic performances, and attendance. Research shows positive correlations between student's behavior and academic performance vis-à-vis dropout rate. It is observed that students who are dropped out normally have one of and/or a few of the factors like poor discipline habits, truancy issues, and students who are on watch list/at-risk students. Literature informs that students who have disciplinary problems are 30% more prone to leave the institution as compared to who do not have such problems [23] (Weis L, Farrar E & Petrie, H. G. 1989) their study also showed that students who received "D" or even lower grades are more likely to leave the education in between, by dropping out. It is also observed students, who normally break the law (Undisciplined) are 33% more prone to quit before completion of their graduation. Normally these factors are negative

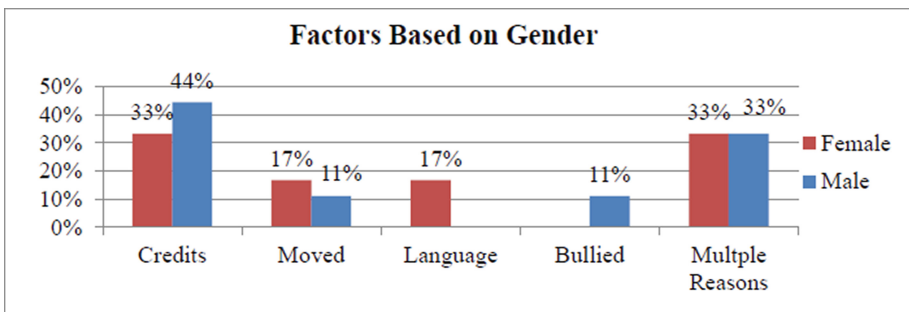
and are both inside and outside the educational institutions. These factors include areas like academic performance, behavior, discipline, etc. Longitudinal Research by [24] showed students with higher aggression showed achieving lower academic grades and were among earlier dropouts. As per their web site “Academic Performance” is another important factor between students to remain in school or dropout. Research on the Truancy factor showed that students having such factors are 34% more likely to drop out as compared to normal students. A study by [25] showcases the fact that attendance played a critical role in completing the studies. It was found that being absent from the whole semester led to higher dropouts. In one of the studies, it is explained in a specific study, carried out in the US and UAE about how the organizational structure of a school affects dropouts. The research used linear analysis to study what leads to absenteeism. The same research found that school organizations with specific norms in place had less of a risk for student absenteeism, thus, lowering the dropout rate. As per [26] innovative and collaborative learning approaches if used by schools/universities can bring dropouts rate down.

### **School Oriented Factors**

School Oriented Factors are those factors which as per [27] pertain to happening within the institution during day time like structure, activities, student engagement, school/institution climate, learning environment, facilities, and vision, etc. These factors are so important that they have the power to interest and involve the student in learning and compels the students to achieve their set goals or provide them with a negative feeling of detaching from the institution thus causing a higher percentage of dropouts. In one of the studies where students were interviewed, the results showed that students expressed unhappiness and felt they rather wasted productive few years by continuing education. Many further expressed even after not completing their assigned academic tasks, like assignments, homework, and classwork they were awarded passing grades [28] Students also felt that teachers were not able to control the class thus they felt dejected and had a feeling of not learning anything significant. Safety was another important issue that prompted many students to leave, which could have been avoided by proper counseling but in many states/countries/counties the ratio of counselors to students was 1:500. In short, school structure along with safety and tidiness/orderliness in accessing institutions can be the difference in positively encouraging students and prevent dropouts. As per [29] student success is highly influenced by structure, safety, and location. The vision of the institution, sound academic bodies, rich curriculum, and regular and healthy interaction with students, disciplinary policies, and teacher’s – student engagement hurts student’s dropout rate. During one research it was found that there existed no prevention plan for at-risk students pointing how important it is to have, a note of such students. Dropout prevention also resulted from healthy interaction and collaboration among administrators, curriculum developers, school administrators, teachers, school boards, and leadership at the helm of total control. [26] Suggested schools of any type have to have a good working environment and support system to prevent dropouts otherwise, the industry would have ill-prepared students for the job market.

**Family Oriented Factors**

Family culture, socio-economic status, parental support, use of alcohol and drugs at home, family composition, lack of parent education, dysfunctional home, parenthood (the way children are brought up) are a few of the important factors which fall under family-oriented factors. These factors when used by researchers showed that nearly fifteen percent of respondents moved out of the institutions because of these factors. Research in the western, as well as the eastern world, pointed that when any of the parents, when left their spouse and moved to another country/region for greener pasture made conditions and environment which caused their moving/dropping out of studies. In the cases when children also moved with parents to another region/city, many dropped because of language and other local problems of the places they shifted. In a study done for A Group of fifteen dropout students respondents in America, when interviewed only by two respondents, lived with both of their parents, ten lived with either one of their parents and three lived without parents directly have a connection with the study done by [30] on why school students dropout. The same study also questioned the students’ reaction of their family members on their dropping out, to which, only twenty-seven percent responded by saying their family tried talking to them, nearly thirty-three percent said their family did nothing to ask/influence them. It was further found that dropout students had a history of their sibling, parents too dropping out. The findings of these family-related questions reveal that [29] theory on factors such as living in a dysfunctional home, a home where drugs and alcohol are abused, a home where family deficiencies are present, and a lack of parental education have all been connected with student dropouts (Fig. 1).



**Fig. 1.** Response to the question what caused student to leave school based on gender

**Community Oriented Factors**

Factors like ethnicity, gender, race, culture, language, social class, community support, and environment come under community-related factors. Group of dropout student’s respondents when asked questions nearly fifteen pointed out that gender and ethnicity played an important role in them leaving their schools.

Figure 2 below shows another similar research to questions on factors that caused students to drop out of school, based on race. Both the figures below and above showed dominant factors like language, family moving out, credits, and being bullied as the main reasons for dropping out. Family income below the poverty line was also a dominant reason for dropping out of school.

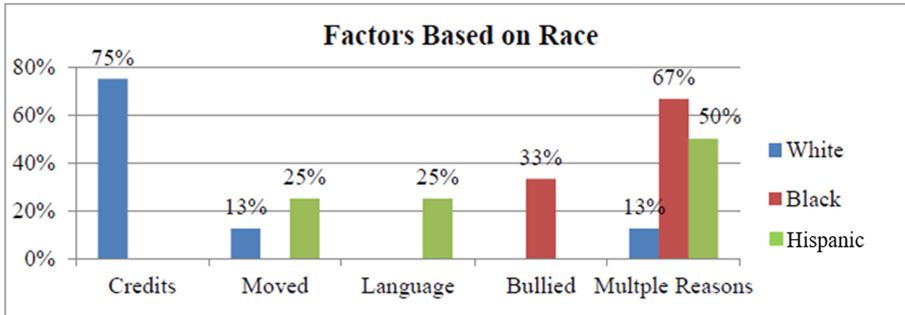


Fig. 2. Responses are given to question factors causing school dropout based on race

**Social Media Oriented Factor**

Today students spend their majority of time on social media gossiping and wasting their time. They keep their status updated with non - useful activities which takes a toll on their mental health and also frustrates their parents about them wasting time. At-Risk students who spend more time on Social Media are often seen to be having a higher dropout percentage.

**Job Shadowing “A Practical Approach to Reverse Job Dropout Among Students”**

Job shadowing gives a very practical exposure to students, in that it provides them with real-life learnings combined with the latest technology. As per the groundbreaking 2006 survey report, The Silent Epidemic, commissioned by the Bill and Melinda Gates Foundation it is not just functional skills they get to observe but also life skills like Job Shadowing provides students with a real-life practical platform of connecting theory to practical life by professional. In today’s service-based economies job shadowing gives students real training on how professionals tackle real-time problems at work. Job shadowing helps students learn about work by taking them behind the scenes in a business, often providing their first real look at jobs in the 21st Century.

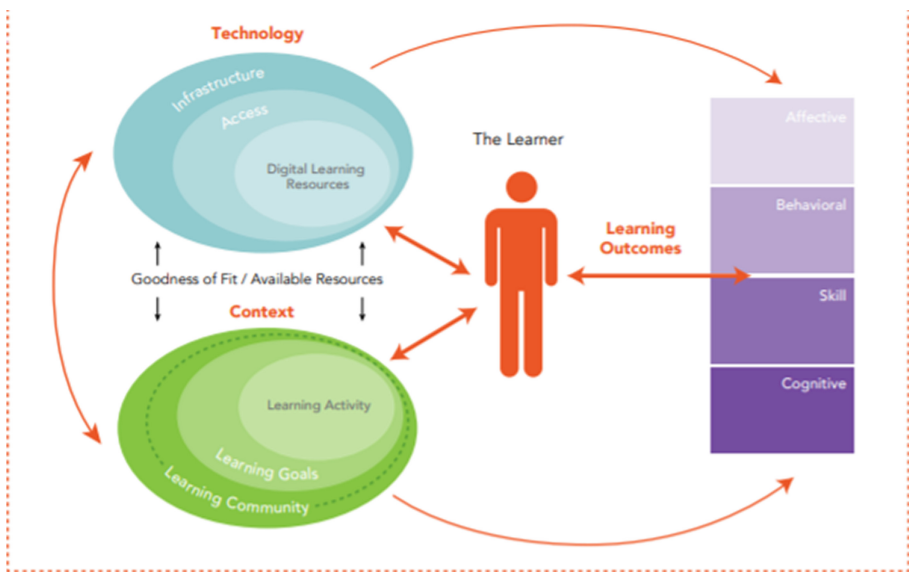
In addition, job shadowing is an opportunity for businesses to become involved in their community. Students learn from their experiences that every job in a company is important and that all employees depend on their peers to do their jobs well and to satisfy their customers. Moreover, employees who volunteer, view job shadowing as an important component of their corporate social responsibility. In effect, it brings out a whole change in the attitude towards work, in that they feel enriched about their role and helps them enhance certain important competencies, like leadership skills. They can also develop skills that they can utilize at work.



Student’s job shadow memories will remain with them as they examine and evaluate their career options, business volunteers will have made an impact on the lives of young people, and the entire community will enjoy a positive return on its investment in human capital.

**How Technology Can Help Reduce Student Dropouts?**

First, different learning outcomes are possible, for example (students’ interests and motivations) and behaviors (participation in learning) for specific goals based on skills, cognitive ability, or both. Key components of the technology change these results, including technical infrastructure such as bandwidth, servers, storage and data hosting. Access depends on the quantity and type of equipment used in the learning environment and how it is used. At school, common access models include better learning about personal devices, static computing labs, mobile computing labs, and adaptive/accessible resource technologies. Learning Outcomes Framework Fiji Learning Community. “Bring Your Own Device Program (BYOD)”. Accessibility models at home include computers, tablets and smartphones and the Internet connection. Young people may have access to social technologies outside the home, and schools. Each enables an environment that surrounds the learning technology monopoly. Digital learning resources are materials (software and talent) that encompass the learning experience of the learner (Fig. 3).



**Fig. 3.** Digital learning ecosystem

**Interactive Learning:** CBI’s interactive system diagnoses student comprehension levels, customizes the materials they interact with, provides more interactive learning activities, and provides student feedback and detailed information about student performance. Such programs, where teachers supplement instructions, explain concepts,

and coordinate student discussions, can help low-performance students pass government competence test and learn rewarding new materials. It has been shown in some studies.

### **Technology to Create and Explore**

CBI's (Computer Based Instructions) interactive system diagnoses student comprehension levels, customizes the materials they interact with, provides more interactive learning activities, and provides student feedback and detailed information about student performance. Such programs, where teachers supplement instructions, explain concepts, and coordinate student discussions, can help low-performance students pass government competence test and learn rewarding new materials. It has been shown in some studies.

### **One to One Access**

Students are able to access one-to-one computing opportunities with the right hardware and bandwidth to support their work. That's what's important. One-to-one access refers to the environment in which one device is available to each student.

### **Systematic Approach of Project Based Learning (PBL)**

PBL models students constantly create, practice, and explore blogs, participate in online forums and chats, or complete tasks and lessons that require in-depth research. We run projects that require analytical skills and media awareness. Other lessons include developing and editing Wikis, recording podcasts and podcasts, developing multimedia presentations, creating compositions and publications, and creating complex animations. This diverse activity was developed to embrace and inspire students through an interactive educational process while teaching learning materials and skill sets that are useful in real-world applications.

### **Flipped Class**

A reverse classroom is a novel combination of teachers, colleagues, and technology. The term generally refers to the use of technological devices outside of the classroom to provide students with information that occurs during regular classroom lessons (e.g. giving video-based lectures, etc.). Reading and tests (students are expected to complete at home). Class time is used for question-based discussion and collaborative questions. Currently, there is much discussion, but this approach predominates. There have been efforts in higher education.

## **6 Findings**

Job Shadowing helps students achieve their career goals. Job Shadowing makes students know about options on their career paths.

It helps students knowing about the importance of staying in their schools. Job Shadowing helps to strengthen relationships in the community. It helps teachers maintain a healthy, working partnership with business and keeps them motivated about keeping their knowledge up to date. Job Shadowing helps teachers' students participate in making

important questions for students who, ask these for industry mentors. This satisfies both teacher and students and enhances the mutual Teacher-Student Relations.

Job Shadowing helps organizations in honing their employee's leadership skills. Job Shadowing helps the student understand their course outcome better and in a more practical way. Clients, Customers of Organizations providing Job Shadowing are viewed positively thus helps business enhancement.

Students who were earlier wasting their time on social media now put their Job Shadowing pictures which directly helps students improve their profile. Besides all the above factors there are several more benefits to both student and organizations as follows;

### **6.1 Benefits for Students**

Learn to present themselves well in speaking and dressing.

Students learn time management better.

Get insight to work on problems systematically.

Learn team management and team objectives.

Learn and start writing emails professionally.

Learn to work with peers and seniors.

### **6.2 Benefits for Businesses**

Students start learning to promote products and services they have worked on and always try to promote quality to their fellow students and other members of society to whom they meet.

Businesses can build a pipeline of talent.

Job Shadowing instills a positive attitude, working hard and smart, and fellow staff interaction.

Business can meet their obligation towards corporate social responsibility.

Brand employability of business achieves higher heights.

With a strategic policy approach that supports the most effective use of technology, many more students who are currently at risk are able to learn effectively, graduate from high school, and successfully move toward a productive future.

## **References**

1. Sosu, E.M., Pheunpha, P.: Trajectory of university dropout: investigating the cumulative effect of academic vulnerability and proximity to family support (2018). <https://doi.org/10.3389/feduc.2019.00006>. <https://www.frontiersin.org>. Accessed 10 Jan 2020
2. Ortiz, E.A., Dehon, C.: Roads to success in the Belgian French community's higher education system: predictors of dropout Bruxelles. *Res. High. Educ.* **54**, 693–723 (2013). <https://doi.org/10.1007/s11162-013-9290-y>
3. Yorke, M.: Non-completion of full-time and sandwich students in English higher education: costs to the public purse, and some implications. *High. Educ.* **36**(2), 181–194 (1998)

4. Yorke, M.: Academic failure: a retrospective view from non-completing students. In: Peelo, M., Wareham, M. (eds.) *Failing Students in Higher Educations*, pp. 29–44. Society for Research into Higher Education & Open University Press (2002)
5. Pascarella, E.T., Terenzini, P.T.: Interaction effects in Spady and Tinto's conceptual models of college attrition. *Sociol. Educ.* 197–210 (1979)
6. Pascarella, E.T., Terenzini, P.T.: *How College Affects Students: Findings and Insights from Twenty Years of Research. A Third Decade of Research.* Jossey-Bass, San Francisco (2005)
7. Bowen, W.G., Chingos, M.M., McPherson, M.S.: *Crossing the Finish Line: Completing College at America's Public Universities.* Princeton University Press, Princeton (2009)
8. Fortin, L., Marcotte, D., Potvin, P., Royer, E., Joly, J.: Typology of student at risk of dropping out of school: description by personal, family and school factors. *Eur. J. Psychol. Educ.* **21**(4), 363–383 (2006)
9. Bowers, M.E.: Why are 21st century students dropping out of high school? An examination of causes, effects, and prevention (Order No. 10618513) (2017). ProQuest Dissertations & Theses Global. (1964284798). <https://libsrv.wku.edu:2048/login?url=https://search-proquestcom.libsrv.wku.edu/docview/1964284798?accountid=15150>
10. Melguizo, T., Torres, F.S., Jaime, H.: The association between financial aid availability and the college dropout rates in Colombia. *High. Educ.* **62**, 231–247 (2011). <https://doi.org/10.1007/s10734-010-9385-8>
11. Paterson, N.D.: Predictors of first year retention rates at the University of the West Indies. Jamaica. *Int. J. Educ. Dev.* **55**, 63–68 (2017). <https://doi.org/10.1016/j.ijedudev.2017.06.001>
12. Atzaba-Poria, M., Pike, A., Deater-Deckard, K.: Do risk factors for problem behavior act in a cumulative manner? An examination of ethnic minority and majority children through an ecological perspective. *J. Child Psychol. Psychiatry* **45**, 707–718 (2004). <https://doi.org/10.1111/j.1469-7610.2004.00265.x>
13. Belloc, F., Maruotti, A., Petrella, L.: *University drop-out: an Italian* (2010)
14. Harrison, K., Kerby, D., Fleak, S.K.: Forging effective campus relationships. *CPA J.*, **79**(1), 69–71 (2009). <https://journals.lww.com/nursingmanagement/pages/default.aspx>. Accessed 11 Nov 2011
15. Chi, C.G., Gursoy, D.: How to help your graduate's secure better jobs? An Industry perspective. *Int. J. Contemp. Hosp. Manag.* **21**(3), 308–322 (2009). Accessed 12 Nov 2011 from Academic Source Premier Database
16. Lozada, M.: Job shadowing—Career exploration at work. *Tech. Conn. Educ. Careers* **76**(8), 30–33 (2001). Accessed 12 Nov 2011 from ERIC database
17. Stracener, B.: Job shadow program makes a big impression at this credit union. *Credit Union Manage.* **28**(8) (2005). Accessed 12 Nov 2011 from Business Source Premier database
18. Kitsis, E.A.: Shining a light on shadowing. *J. Am. Med. Assoc.* **305**(10), 1029–1030 (2011). Accessed 12 Nov 2011 from Academic Search Premier database
19. Haimson, J., Bellotti, J.: *Schooling in the workplace: increasing the scale and quality of work-based learning.* Mathematica Policy Research Final report (2001). Accessed 12 Nov 2011 from ERIC database
20. Chopra, A.: Dissimilar approach to management education. *Anthropol. of Education eJournal* Chopra, Dr. Ashok, Dissimilar Approach to Management Education, 5 January 2018. <https://ssrn.com/abstract=3096910>. <https://doi.org/10.2139/ssrn.3096910>
21. Johnson, P.M.: Women's career investment and the returns: career benefits and barriers in the 21st century green economy. *Forum Public Policy Online* **2010**(2) (2010). 12 Nov 2011 from ERIC database
22. Crouch, D.K.: *Factors that Influence Students' Decisions to either Drop Out or Graduate from High Schools in a Western Kentucky School District* (2018). Dissertations. Paper 151. <https://digitalcommons.wku.edu/diss/151>

23. Weis, L., Ferrar, E., Petrie, H.G.: Dropouts from School. State University of New York Press, Albany (1989)
24. Ekstrom, Goertz, Pollack, and Rock (1986). [https://www.ets.org/research/policy\\_research\\_reports/publications/chapter/1986/hxzx](https://www.ets.org/research/policy_research_reports/publications/chapter/1986/hxzx)
25. Allensworth, E., Easton, J.Q.: What matters for staying on-track and graduating in Chicago public high schools: a close look at course grades, failures, and attendance in the freshman year. Consortium on Chicago School Research, Chicago (2007)
26. Wells, S., Bechard, S., Hambly, J.V.: How to identify at-risk students: a series of solutions and strategies. National Dropout Prevention Center at Clemson University, Clemson (1989)
27. Lagto, J.: Dropouts explain why they voted with their feet: they didn't teach me. Natl. Catholic Rep. **41**(29), 18 (2005)
28. Baker, J., Sansone, J.: Interventions with students at risk for dropping out of school: a high school responds. J. Educ. Res. **83**(4), 181–186 (1990). <https://doi.org/10.1080/00220671.1990.10885954>
29. The District Leadership Challenge: Empowering Principals to Improve Teaching and Learning Bottoms, Gene; Fry, Betty Southern Regional Education Board (SREB)
30. Lacey: Talladega County Schools, personal communication, 5 February 2014