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What is the Right Post-Secondary Course for People with Special Needs

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ABSTRACT: In India, there is a large number of students with disabilities is entering universities because better academic preparation, improved transition planning and scholarship programs. On one hand, a large number of students with disabilities is enrolling into science and applied science courses at postsecondary level due to monetary awards and job securities attached with these courses. In developing countries, these students are from low and middle classes and these students are motivated by monetary factors to enter science courses while in developed countries, students are motivated by various reasons such as passion for science, fame and hawking factor to enter science courses. Upon completion of these courses, these students are unable to find decent jobs because decisions to enroll into science courses have no relevant to a scientific paradigm. In fact, within the 22 paradigm of special education, reading and writing instructions are focal points and very little is done on science subjects in secondary classes. In 13 India, many educational boards waive science and mathematics papers for students with disabilities at secondary level because of complexity of these subjects. So vast majority of students with disabilities have no sound knowledge of mathematics and science to enroll into science and applied science courses at postsecondary level. From the survey of literature suggests vast majority of students with disabilities are poor in sciences and they are good in management and non-sciences such as arts, humanities, social sciences and law. On another hand, students with disabilities are enrolling into non-science courses and finding decent jobs. This paper argues different disabilities require different postsecondary courses. In order to do that researcher will be using regression method. Job status will be categorical dependent variable and it will take two values. Types of disabilities will be an independent variable and it will take three values mild, moderate and severe. Types of post-secondary education will be 10 an independent variable and it will take three values management non science and science. Mathematic score at ten grades will be an independent variable. And grade average points at undergraduate level will be an independent variable. Sample size is 150 1 adults with disabilities having a college degree for this study.

KEYWORDS- science, non-science disability, higher education

INTRODUCTION

Students with disabilities (SWDs) are attending college in increasing numbers. According to the National Center for Education Statistics (2002), 9% of U.S. 18 undergraduates surveyed in 1999-2000 reported having a disability (Brinckerhoff, McGuire & Shaw, 2002). Moreover, the similar phenomenon is present in developing countries like India. On one 1 hand, Students with disabilities are enrolling into science and applied science courses at postsecondary level due to monetary awards and job securities attached with these courses in developing countries. 5 In developing countries, these students are from low and middle classes and these students are motivated by monetary factor to enter science courses while in developed countries, students are motivated by various reasons such as passion for science, fame and hawking factor to enter science courses. These students are becoming gray failures because decisions to enroll into science courses have no relevant to a scientific paradigm. On another hand, students are enrolling into non-science and management courses and are finding decent jobs. Some papers are claiming underrepresentation of SWDs in sciences. These papers are funded by departments of sciences to increase students so that these departments will be in position to receive more funds from government. I am getting into politics 11 of higher education however it's important to know the context and background of higher education and disability in some states because SWD's social and economic opportunities may be limited. (Laudan and Pamela 2012). One of goals of this paper is to establish a good link between types 1 of disabilities and types of education at postsecondary level so that people with disabilities can acquire decent jobs after finishing postsecondary courses because one of key outcomes of college program is employability. Some parents of students with disabilities are claiming that these students can enroll in any postsecondary courses however the empirical evidence strongly refutes this claim. A survey 3 of special education teachers conducted by Patton, Polloway, and Cronin suggested that science is often not taught at all and when it is taught, is allocated less time than typically is allocated in general education. 14 Recent history of special education has focused on basic skill instruction in such areas as reading, writing, and spelling (see Mastropieri& Scruggs, 1994), and on cognitive strategy instruction (see Deshler, Ellis, &

Lenz, 1996). Science education is important for all human beings especially for people with disabilities so educators and special educators had developed alternative methods of teaching science at high school. These as followings:

1. Organizing content by aspects of the world (e.g., the living environment, human society), rather than rigid boundaries between traditional disciplines (e.g., physics, anatomy).

2. Promoting the study of common themes (e.g., systems, models, scale, change), rather than specific specialized or unreasonably difficult topics (e.g., circuits, quadratic equations).

3. Interrelating science, mathematics, and technology with human and social aspects.

4. Developing understanding of the big picture in plain English, rather than supporting details and specialized technical vocabulary.

However, these methods failed to teach epistemological requirements of college level science courses. Some scholars argued for other methods such as inquiry methods and problem-based learning method to teach science. The inquiry method by itself is also insufficient for academically challenged students because learning by experience is too slow for students with fundamental weakness in basic scientific concepts. In the absence of a basic fundamental knowledge to build upon, they are unable to process and add new information given these dismal performances in the sciences over the years, it will appear that other strategies, such as the inductive strategy, have also failed these students for the same reasons (Godwin E. Mbamalu 2001). Constructivism can be used to explain why many students of today, particularly academically underprepared students, develop misconception and fail in the sciences. Because of their poor background in fundamental middle and high schools' sciences many of these students are unable to relate concepts to any experience and are thus unable to think critically. These misconceptions arise when existing knowledge constructs are not sufficient for the proper under-standing of the topic of instruction. Generally, when new information cannot be properly processed with the existing construct, it is modified or rejected. In addition, students with insufficient background knowledge in the sciences find the general laws and relationship in science to be too difficult for them, given their background and vocabulary development. These difficulties often result in frustration reduction in interest, and dropout. Four learning features of these students and these are following:

1. General lack of background knowledge in the Fundamental scientific concepts and therefore Inability to deal with the abstractions of science.

2. Deficiencies in verbal skills and consequent inability to properly understand the generalizations and abstractions of science.

3. Weakness in making transition along related concepts and generally unable to extrapolate ideas or concepts learned, and make connections between related concepts.

4. Inability to reason by analogy or to relate concepts to direct experience, which generally results in students "turning off or losing interest 5 in science and mathematics.

Secondary 1 education for students with disability

One has to examine secondary education for students with disabilities before enrolling them into suitable post-secondary courses.

Young people with disabilities who graduated from high school on average earned 22 high school credits, as did high school graduates with no identified disabilities. Twelve of the credits earned by graduates with disabilities were in academic subjects, somewhat fewer than the fifteen credits earned by students in the general population. Reflecting their emphasis on vocational goals, the average secondary school student with disabilities earned five credits in vocational education, one more than typical high school students. One credit was earned in a life skills course, and the remaining four credits were earned in other subjects, such physical education or the arts. With the exception 1 of high school graduates with mental retardation or multiple disabilities, this pattern of credits earned did not vary significantly for students with different kinds of disabilities, largely due to the standardization imposed on high school course taking by state and school district graduation requirements. Although virtually all high school students their class time taking academic courses, few of them took courses that were indicative of college-preparatory programs. Further, only 7 of the 12 academic credits earned by graduates 1 with disabilities as a group were in regular education academic courses. 2 Special education courses may have conferred different kinds or levels of preparation for postsecondary education and other adult roles than courses taken in regular education.

Yet, these aspects of academic course taking varied widely 1 for students with different kinds of disabilities. For example, 15 among students with visual impairments, 51% took advanced

mathematics at some time in high school, and 62% took a foreign language, reflecting the fact that postsecondary education was a more common intention among these students than among students with disabilities as a whole. Further, 13 of the 15 academic credits earned by students with visual impairments were in regular education classes, suggesting that more of their high school course work was comparable to that of typical students than was true for students with disabilities as a whole. Many aspects of the secondary school experiences of young people with disabilities are closely related to the nature and severity of their disability. For example, placement in regular education classrooms is more common for less severely impaired youths than for those with multiple disabilities. Many students with disabilities face the double challenge of trying to learn sophisticated new mathematical procedures while lacking fluency with basic mathematical terms and operations. For example, although 10th and 11thgrade students with disabilities could provide accurate definitions for mathematical terms, they experienced difficulty applying terms correctly in problem-solving situations (Huntington, 1994) older students with disabilities did not perform as well as younger nondisabled peers in addition, subtraction, multiplication, and division, (Paula Maccini, 1999).

Yet, throughout four grades of high school, only 12% of students with disabilities had taken any advanced mathematics (which includes algebra geometry, trigonometry, or calculus), courses often required for college entrance. As the students move from elementary to secondary grades, the gap between them and their normally achieving peers may widen in sciences. A vast majority of students with disabilities have no sound knowledge of science and mathematics to enter science courses. Given this picture, students with disabilities are better off with non-science and management courses.

Methods

Objectives and Hypothesis

The objectives of the study are:

a) To provide a good link between types of disabilities and types of postsecondary courses.

b) To provide a link between types of disabilities and job status.

Ho1: Students with disabilities are better off with non-science and management courses.

Sampling

In order to find out what are right post-secondary courses, the researcher conducted a survey of 200-degree holders with disability.

Recently there was a conference on higher education and disability at Indian institute of management. This conference saw a gathering of 200 adults with disabilities and who had a college degree. This list of 200 adults with disabilities is the sample frame for the study. In India, there are 500 adults with disabilities enrolled into university programs.

During the conference, one of speakers said that there was 5 a large number of adults with disabilities who enrolled into science courses and unable to find jobs after finishing their courses.

1. The sample was selected based upon following yardsticks: She or he 16 must have a college degree from reputed Indian universities or international universities,

2. Age should be above 25 because on the average, an adult with disabilities starts a career around 25.

3. She or he must have a disability.

1 In order to test Hypotheses of study researcher needs following information from responders: types of disabilities; types of post-secondary education mainly science, management and non-science; mathematics score at ten grades; grade average points at undergraduate level; job status.

Researcher collected information from telephone interview method. Before 2000 16 all students must take mathematics at ten grade to acquire a high school diploma so the entire sample took mathematics however some Indian educational boards waived mathematics and science.

At end of this process, 150 1 adults with disabilities met sampling requirements for this study. Sample had 70% of males, sample size was 150 and 30% of sample had a foreign degree.

Variables

Variables were selected from arguments in literature, suggested there was a strong relationship between types of disabilities and selection of courses 5 at secondary level. Types of disabilities is a independent categorical variable and it will be taking three values mainly mild, moderate and severe. Types of post-secondary courses is independent categorical variable and it will be taking three values mainly science, non-science and management. Mild disabilities include orthopedically with good hand function and visually challenge. Moderate disabilities include deaf, speech problems and CP with good hand function. Severe disabilities include deaf mute, CP with poor hand function. Mathematics is a is

an independent categorical variable a scale variable out of 100. GPA is ais independent categorical variable a scale variable out of 4.0. Job status is a dependent categorical variable and it will be taking two values mainly Yes or no. Yes, means has a job.

Study tools

Logistic Regression

In order to prove job status is depending on types of disabilities, types of post-secondary courses, and other two variables I used regression.

In statistics, logistic regression or logit regression is a type of regression analysis used for predicting the outcome of a categorical dependent variable (a dependent variable that can take on a limited number of values, whose magnitudes are not meaningful but whose ordering of magnitudes may or may not be meaningful) based on one or more predictor variables. That is, it is used in estimating empirical values of the parameters in a qualitative response model. The probabilities describing the possible outcomes of a single trial are modeled, as a function of the explanatory (predictor) variables, using a logistic function. Frequently (and subsequently in this article) "logistic regression" is used to refer specifically to the problem in which the dependent variable is binary—that is, the number of available categories is two—and problems with more than two categories are referred to as multinomial logistic regression or, if the multiple categories are ordered, as ordered logistic regression.

Logistic regression measures the relationship between a categorical dependent variable and one or more independent variables, which are usually (but not necessarily) continuous, by using probability scores as the predicted values of the dependent variable. As such it treats the same set of problems as does probit regression using similar techniques.

Alternatively, when assessing the contribution of individual predictors in a given model, one may examine the significance of the Wald statistic. The Wald statistic, analogous to the t-test in linear regression, is used to assess the significance of coefficients. The Wald statistic is the ratio of the square of the regression coefficient to the square of the standard error of the coefficient and is asymptotically distributed as a chi-square distribution. Regression models with chi square scores of 30 to 65 are poor models. Models with chi square scores of 60 to 95 are moderate models

Correlation

Simple correlation is used in order to prove there are correlations among variables.

Analysis and concluding remarks

There was a very strong correlation between mathematics scores and disability. The correlation was .829 for these two variables therefore disability has a major play in mathematics scores thereby in selection postsecondary courses.

Adults with mild disabilities scored 70 to 89 out of 100 and these students took science courses at postsecondary level and found decent jobs however adults with moderate and severe disabilities scored 40 to 60 out of 100 and these students were better off with non-science courses and management courses. Adults with moderate and severe disabilities should take non-science courses.

We have to accept hypothesis students with disabilities who are taking science courses and are not finding job there was a strong correlation between disability and job status.

Adults with mild and moderate disabilities have a greater chance of getting jobs if they had done right education. These students have a probability of 67% of getting a job, and 7% of these students took science courses at postsecondary level. We have to accept the hypothesis that Students with disabilities who taking non-science courses and finding decent jobs. Students with disabilities are better off with non-science courses based upon correlation between mathematics scores and disability.

Regression

Regression model with job status and types postsecondary education and disabilities. This model was a moderate model because chi square score was 92.925 and models with chi square scores of 75 to 300 are moderate models. The postsecondary education was the major factor in deciding job status because score for management was 26.927 and for non-science was 23.231

This model explained 65% of job status by two variables by postsecondary education and disabilities, and disabilities is the minor factor in deciding job status because wald score for mild was 16.981 and for moderate was 7.683. If students with disabilities enroll into right courses based upon types of disabilities than they have a greater chance of getting jobs.

This model explained 70% of job status by three variables such as nature of disability postsecondary

education and mathematics score because McFadden and nagelkerkecloses to 70%This model was a good model because of chi square of this model was 120. 293.Postsecondary education was major factor in deciding the job status. Wald score of management is 14.045 and wald score of non-science is 12.238.

Again, disability was a minor factor in deciding job status because wald score for mild was .766 and wald score was 0004 for moderate. The survey of literature on disabilities and science and results of this study suggests teaching science is an uphill task while adults with mild disabilities can do science at secondary level but the question remains can these adults with mild disabilities take up science as a career. The answer is to that question is yes if they have studied mathematics at ten grades because in science learning is a linear process.

Adults with mild disabilities must have met certain requirements to enroll into sciences and these are:

1. She or he must have good hand function.
2. She or he must have studied mathematics.
3. She or he must have 50% of vision

Teaching science to adults with moderate and severe disabilities at postsecondary level is an unrealistic and far fetch goal but adults with moderate disabilities can enroll into science courses maybe due to adults 1 with disabilities have talent to do science but they lack physical means to do science. Therefore, adults with disabilities are better off with non-science and management courses and empirical evidence strongly support this claim.

References

Hammig, A. C. (1996). Inclusive Postsecondary Strategies for Teaching Students with Learning Disabilities: A Reviewof the Literature. Learning Disability Quarterly, 32(3), 181-196.

Hanich, L. B. (2001). Performance across dif- ferent areas of mathematical cognition in children with learning difficulties. Journal of Educational Psychology, 93, 615-626.

Hecht, S. A. (2001). The relationship between phonological processing abilities and emerging individual differences in mathematical computation skills: A longitudinal study of second to fifth grades. Journal of Experimental Child Psychology, 79, 192-227.

JermanReviewed, H. L. (2006). Math Disabilities: A Selective Meta-Analysis of the Literature. Review of Educational Research, 76(2), 249-274.

Joseph R. Jenkins, P. S. (2006). How Special Education Preschool Graduates Finish: Status at 19 Years of Age. American Educational Research, 43(4), 737-781.

Joseph R. Jenkins, P. S. (2006). How Special Education Preschool Graduates Finish: Status at 19 Years of Age. American Educational Research Journal,, 43(4), 737-781.

Kulkarni, E. C. (2009). Middle-School Mathematics Curricula and Students with Learning Disabilities: Is OneCurriculum Better? Learning Disability Quarterly,, 32(4), 228-244.

Loprest, L. A. (2012). Disability and the Education System. The Future of Children,, 22(1), 97-122.

Mbamau, G. E. (2001). Teaching Science to Academically Underprepared Students. Journal of Science Education and Technology, 10(3), 267-272.

Paula Maccini, D. M. (1999).Algebra Instruction for Students with Learning Disabilitie. Learning Disability Quarterly,, 22(2), 113-126.

Paula Maccini, D. M. (2002).Algebra Instruction for Students with Learning Disabilities: Implications from a ResearcH. Learning Disability Quarterly, 22(2), 113-126.

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