**LITERATURE REVIEW**

**for OpenSchool : on-demand voluntary mentoring platform**

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| Year of Paper | Title of Paper | Journal/conference details | Methodology used | Proposed idea | Advantages/achieved objectives in paper | Disadvantages/limitations |
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| 2003 | The antecedents and consequences of early career indecision among young adults | Human Resource Management Review | Article | 1. To study the links between early career indecision and effectiveness of job search behavior.<br>2. The short- and long-term consequences of early career indecision in young adults. | 1.Vocationally oriented study reduces career indecision.<br>2. Career decisiveness and high information search linked to better person-organization fit and psychological well-being. | Does not address the role of peers and cultural values in early career indecision. |
| 2012 | Predictors for career indecision in adolescence | Procedia - Social and Behavioral Sciences | Self-report scales and a personality inventory | To study the contribution of self-image, personality and adult support to career indecision among adolescents. | 1. Low self-efficacy, academic self-esteem, perceived adult support of high school students increases career indecision.<br>2. Shows importance of vocational intervention in career decision making. | Sample composed of students all of the same age and already enrolled in a career counselling program. |
| 2019 | Comparison of development methodologies in Web applications | Information and Software Technology | Systematic Literature Review (SLR) | 1. To compare web development methodologies based on dynamic features presented during the life cycle to identify their use, relevance, and characteristics. | 1. UWE identified as most suitable under dynamic environments. | Methods used in this study are not commonly used. |
| 2020 | Review Paper on Web Frameworks, Databases and Web Stacks | International Research Journal of Engineering and Technology (IRJET) | Comparison of databases, libraries and frameworks for web development | Comparison of databases, libraries and frameworks in Javascript for application development. | Addresses life-cycle length, scalability and maintenance, ease of programming, developer's technical proficiency, type of data, consistency, availability and partition tolerance. | Superficial comparison |
| 2020 | E-commerce Application using MERN stack | Metropolia University of Applied Sciences | Analytical study of different components of MERN stack | 1. To the basic components of MERN Stack technology such as: MongoDB, ExpressJS framework, ReactJS library, and NodeJS platform.<br>2. To develop administrative functions for the website such as user management. | 1. Password data of accounts when logging in to the system is stored in a secure database.<br>2. The management interface, statistics of the user and admin are easy to use for everyone. | 1. The online chat functions are not yet supported.<br>2. The current product search algorithm is not optimal |
| 2009 | From Face-to-Face to e-Mentoring: Does the "e" Add Any Value for Mentors? | International Journal of Teaching and Learning in Higher Education | Senior students in a univrsity were alloted as mentors to first year students(mentees). A survey was conducted asking mentors about their experiences. | 1. To report on one of the outcomes of the scheme: the benefits of e-mentoring for mentors. | 1. Benefitted mentors in organization and communication skills.<br>2. Personal satisfaction.<br>3. More flexibility<br>4. Status difference between mentor and mentee reduced. | Students' expectations of them risked exceeding their current abilities and experience. |
| 2010 | Instant Mentoring: Sharing Wisdom and Getting Advice Online with E-Mentoring | American Dietetic Association | Using real life experiences of professionsals to understand benefits of e-mentoring | Comparison of e-mentoring software with large in-person mentoring programs. | E-mentoring shown to be more accessible, time- and cost-effective. | It does not explain the feasibility of E-mentoring. |

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| 2013 | School-Based Mentoring Programs: Using Volunteers to Improve the Academic Outcomes of Underserved Students. | MDRC | Sample of the study is based on randomized control trial | 1. To understand how volunteer mentors can best support the academics.<br>2. Investigates whether relationships between mentors and students lead to better academic outcomes. | Found that a close mentoring relationship positively affects academic performance. | The research is limited to face-to-face interactions between mentors and students. |
| 2016 | Implementation of Mentoring System Using J2EE Architecture: E-Mentoring | International Journal of Electrical Electronics & Computer Science Engineering | Building online mentoring system for mentors and students, managed by admin. | To explore the process of effective e-mentoring between faculty and the student using a two-tier architecture | 1. User-friendly<br>2. Also available in android<br>3. Allows mentors to dedicate time as per availability | Only Flowcharts and ER diagrams are given. Programming implementation is not explained. |
| 2019 | E-mentoring Activities in Online Programming Communities: An Empirical Study on Stack Overflow | ResearchGate | Content analysis of Stack Overflow threads. | 1. Case study of Stack Overflow as an e-mentoring platform.<br>2. Role of educational communities for mentoring purposes. | 1. Reputation of the mentor and mentee used as an incentive mechanism for better participation.<br>2. Collaborative discussion about positive experiences and opinions. | 1. Conclusions are drawn on limited dataset.<br>2. The self categorization of mentor and mentee may not capture the true profile of users. |

**CONCLUSION :**

The research papers delved in a different aspect of E-mentoring for school students, such as the mentor - student relationship, use of software for E-mentoring, career indecision, etc.

The advantages and limitations of each of these aspects were studied. The limitations of one aspect are largely covered in the benefits of some other aspect. To consider a specific example, interactions between mentor and the student mentioned in the paper on School-Based Mentoring Programs: Using Volunteers to Improve the Academic Outcomes of Underserved Students, 2013 can be further expanded to E-mentoring using the results of the paper Instant Mentoring: Sharing Wisdom and Getting Advice Online with E-Mentoring, 2010.

Two of the papers address career indecision, with one focusing on the implications in the employability scenario for young adults, and the other focusing on the academic aspects for adolescents. The antecedents and consequences of early career indecision among young adults (2003) shows the importance of proper career management and alleviating indecision, by examining the impact on various aspects of later life.
Predictors for career indecision in adolescence explains what areas need to be worked on to achieve these positive outcomes.

Thus, considering the outcome from the above research papers as a whole, it can be concluded that E-mentoring based on voluntary participation by the mentors can positively affect the students' academic life and career decisions. Since the foundation for a strong self-concept is dependent on the academic experience in school, it is important to target this age group for quality guidance and intervention to build a good academic background that will cascade into positive outcomes in later career paths. The paper on "Implementation of Mentoring System Using J2EE Architecture: E-Mentoring" in 2016 clearly explains the architecture required for the implementation of an e-mentoring software. Based on this explanation, the software application for the e-mentoring paltform - OpenSchool will be designed and implemented.