ISSN: 2320-2882

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### INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

### SECONDARY ECONOMICS EDUCATIONAL KIT AS A RESOURCE IN THE LIGHT OF NEP 2020

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#### ABSTRACT

This paper presents the detailed project of secondary economics educational kit-interdisciplinary and inclusive in the light of National Education Policy (NEP) 2020 to be used in learning-teaching process in the area of Social Sciences, Mathematics, Computer Science and Languages-Sanskrit, English and Hindi. Secondary Economics Educational Kit (SEEK) is a creative endeavour to learn different concepts in Economics from interdisciplinary perspective. Through this kit, learners may learn various concepts of economics, mathematics & computer science and there are opportunities to learn different languages such as Sanskrit, Hindi and English too. A variety of kit items like indigenous games, working models and activities on different concepts/themes/topics in economics have been developed to reflect the rootedness in Indian traditions and knowledge system-monetary heritage of India & contribution of Indian thinkers in economics, money & banking, banking and financial services and modern economics in interdisciplinary way. Few kit items have been developed in tactile and in Braille to address the needs of the children with disabilities-visual impairment keeping in view of feasibility and need. An initiative has been taken to revisit the Indian economic heritage forming the context and starting point of the Bharat-Vidya (Indian Knowledge System), to find out the contributions of Indian thinkers to modern economic thinking to preserve, promote and disseminate Indian perspective (Bhartiya Vidya) on Economics (Social Sciences) in interdisciplinary way, the wisdom path shown by the visionary sages and great scholars, the ethical values which stands for social and national interests, and the ideas like Vasudhaiva Kutumbakam ( harmony resulting in peace and sustainable development.

**KEY WORDS:** Secondary Economics Educational Kit (SEEK), Sanskrit, Mathematics, Indian heritage, indigenous games, tactile & Braille, Bharat-Vidya-Indian Knowledge System, interdisciplinary, inclusive.

#### I. INTRODUCTION AND REVIEW OF LITERATURE

National Education Policy 2020 (NEP 2020) envisaged "The rich heritage of ancient and eternal Indian knowledge and thought has been a guiding light for National Education Policy 2020... These rich legacies to world heritage must not only be nurtured and preserved for posterity but also researched, enhanced, and put to new uses through our education system", *page no. 4.....* "The vision of the policy is to instill among the learners a deep-rooted pride in being Indian...as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development and living, and global well-being, thereby reflecting a truly global citizen" *page no. 7*.

The use of the kits has been highly recommended in National Education Policy 2020 (NEP 2020) for effective learning through hands-on, minds-on learning approaches and experiential learning. The educational kits are essential alternatives to the lack of any equipment in most of the schools in India and are supplement to textbooks. In the light of NEP 2020, Department of Education in Social Sciences (DESS) has developed the Secondary Economics Educational Kit (SEEK) alongwith Manual for classes 9 to 12 interdisciplinary and inclusive in nature during 2020-2023.

The world today is in search of alternate socio-economic and cultural life patterns as well as value systems to face the 21<sup>st</sup> century challenges such as poverty (increased ratio between have's and have not's), unemployment, good health and wellbeing, quality education, clean water and sanitation, affordable and clean energy, pollution, global warming, pandemic, cyber-crimes and migration. So far, we have largely depended upon western ideas and philosophies whereas a large number of good and relevant ideas are available in ancient Indian thoughts and writings. We need to find out the feasible solutions to face these challenges, considering the five elements (earth, water, fire, air & sky) from Indian Knowledge Systems as Indian Society is unique in structure, function and dynamics and cannot be linked with the European Society. Indology can make an effective contribution in this on-going search and demands interdisciplinary and multidisciplinary approach. Through this Kit, an initiative has been taken to revisit the Indian economic heritage forming the context and starting point of the Bharat-Vidya (Indian Knowledge System), to find out the contributions of Indian thinkers to modern economic thinking to preserve, promote and disseminate Indian perspective (Bhartiya Vidya) on Economics (Social Sciences), the wisdom path shown by the visionary sages and great scholars, the ethical values which stands for social and national interests, and the ideas like Vasudhaiva Kutumbakam (वर्ष धे के उर्द के मी) for international harmony resulting in peace and sustainable development.

Besides, the Kit has been developed to inculcate important life skills-economic and financial skills for holistic development of the learners, create awareness among Learners about India's monetary heritage and contribution of Indian thinkers to modern economic thinking etc., develop competencies of economics among Learners and empower them to make informed decisions and facilitate them in understanding of the themes/concepts/topics by using hands on activities such as working models, indigenous games and activities etc. and build capacity and enhance competencies of teachers for effective transaction in Economics.

In today's education scenario where mostly, Learners are prepared to just write exam. We all observe that Learners are losing their interest in learning most of the subjects. It's high time for all of us to realise how children of 21st century learn in joyful and meaningful way. In this dynamic world, everything around us is changing so fast may it be smartphones, internet, cars etc. But what about teaching-learning? It still looks the same. And this is the reason children do not find it interesting, they are actually rejecting the present way of teaching-learning. Most of the parents complains about the high stress level of their children, pressure of exams, anxiety about results, worrisome cut throat competition of getting higher marks. But there is a solution. We all know that children enjoy playing games. Children are happiest if they get the opportunity to play games in between studies. The most exciting period for them is not Mathematics, Economics or English but games period. Sports and education are always integrated to each other. A sportsman needs wisdom to stay focussed and calm, similarly to achieve academic excellence a person needs leading capabilities, calmness, determination and great concentration, which could be provided by the sports and games only.

So, to make the learning of Economics joyful and interesting, through this kit we have also integrated sports along with interdisciplinary approach of learning Economics. It is comprised of two parts-Part I and Part II, few activities are inclusive to address the needs of children with disabilities. Teachers may use the kit as per the concept/topic and needs of learners. Starting with the monetary heritage, we introduce history of Indian Coinage, then money and banking, financial awareness, contribution of Indian thinkers with the help of text available in Sanskrit. Several activities have been prepared for Learners so that they may well acquaint with Indian perspective on Economics and many of these activities are in the form of games such as Word Search Puzzle, Cross Word Puzzle, Matching Flash cards, indigenous games-Chess, Ludo, Snakes and Ladders, Cube solving, playing cards and Working Models etc. Although all these games are indoor activities in nature but enhance Learners' abilities in various areas such as hand

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eye coordination, mental exercise, keeping patience, controlling the nerves, logical & decision-making skills etc. It is not a matter of only mental benefits; many physical benefits also can be observed through these games. These help in maintaining blood pressure and keeping us free from stress & anxiety. These games will help Learners to learn not only Economics but other subjects such as History, Maths, Computer Science, Sanskrit, English and Hindi, more importantly it will make children happy. Through these games, skills like problem solving, analytical thinking and team building etc. can be encouraged. Through this Educational Kit, we are going one step forward in the successful implementation of NEP-2020.

National Education Policy 2020 (NEP 2020) envisaged "The rich heritage of ancient and eternal Indian knowledge and thought has been a guiding light for National Education Policy 2020...World-class institutions of ancient India such as Takshashila, Nalanda, Vikramshila, Vallabhi, set the highest standards of multidisciplinary teaching and research and hosted scholars and Learners from across backgrounds and countries. The Indian education system produced great scholars such as Charaka, Susruta, Aryabhata, Bhaskaracharya, Chanakya, Panini, Patanjali, Pingala, Maitreyi, Gargi and Thiruvalluvar etc., who made seminal contributions to world knowledge in diverse fields such as mathematics, medical science and surgery, civil engineering, architecture, shipbuilding and navigation, yoga, fine arts, chess, and more. These rich legacies to world heritage must not only be nurtured and preserved for posterity but also researched, enhanced, and put to new uses through our education system" NEP 2020, page no. 4 "The vision of the policy is to instill among the learners a deep-rooted pride in being Indian...as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development and living, and global well-being, thereby reflecting a truly global citizen" NEP 2020, page no. 7 "The key overall thrust of curriculum and pedagogy reform across all stages will be to move the education system towards real understanding and towards learning how to learn - and away from the culture of rote learning as is largely present today. The aim of education will not only be cognitive development, but also building character and creating holistic and well-rounded individuals equipped with the key 21st century skills. Teaching and learning will be conducted in a more interactive manner; questions will be encouraged, and classroom sessions will regularly contain more fun, creative, collaborative, and exploratory activities for Learners for deeper and more experiential learning. In all stages, experiential learning will be adopted, including hands-on learning, arts-integrated and sports-integrated education, story-telling-based pedagogy, among others, as standard pedagogy within each subject, and with explorations of relations among different subjects. To close the gap in achievement of learning outcomes, classroom transactions will shift, towards competency-based learning and education. Art-integration is a cross-curricular pedagogical approach that utilizes various aspects and forms of art and culture as the basis for learning of concepts across subjects. As a part of the thrust on experiential learning, art-integrated education will be embedded in classroom transactions not only for creating joyful classrooms, but also for imbibing the Indian ethos through integration of Indian art and culture in the teaching and learning process at every level. This art-integrated approach will strengthen the linkages between education and culture. Sports-integration is another cross-curricular pedagogical approach that utilizes physical activities including indigenous sports, in pedagogical practices to help in developing skills such as collaboration, selfinitiative, self-direction, self-discipline, teamwork, responsibility, citizenship, etc. Sports-integrated learning will be undertaken in classroom transactions to help Learners adopt fitness as a lifelong attitude and to achieve the related life skills along with the levels of fitness as envisaged in the Fit India Movement. The need to integrate sports in education is well recognized as it serves to foster holistic development by promoting physical and psychological wellbeing while also enhancing cognitive abilities." NEP 2020, page no. 12-13 "The importance, relevance, and beauty of the classical languages and literature of India also cannot be overlooked. Sanskrit, while also an important modern language mentioned in the Eighth Schedule of the Constitution of India, possesses a classical literature that is greater in volume than that of Latin and Greek put together, containing vast treasures of mathematics, philosophy, grammar, music, politics, medicine, architecture, metallurgy, drama, poetry, storytelling, and more (known as 'Sanskrit Knowledge Systems'), written by people of various religions as well as non-religious people, and by people from all walks of life and a wide range of socio-economic backgrounds over thousands of years. India also has an extremely rich literature in other classical languages, including classical Tamil, Telugu, Kannada, Malayalam, Odia. In addition to these classical languages Pali, Persian, and Prakrit; and their works of literature too must be preserved for their richness and for the pleasure and enrichment of posterity." NEP 2020, page no. 14 For the enrichment of the children, and for the preservation of these rich languages and their artistic treasures, all Learners in all schools, public or private, will have the option of learning at least two years of a classical language of India and its associated literature, through experiential and innovative approaches, including the integration of technology, in Grades 6-12, with the option to continue from the middle stage through the secondary stage and beyond. NEP 2020, page no. 15 "Knowledge of India" will include knowledge from ancient India and its contributions to modern India and its

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successes and challenges, and a clear sense of India's future aspirations with regard to education, health, environment, etc. These elements will be incorporated in an accurate and scientific manner throughout the school curriculum wherever relevant; in particular, Indian Knowledge Systems, including tribal knowledge and indigenous and traditional ways of learning, will be covered and included in mathematics, astronomy, philosophy, yoga, architecture, medicine, agriculture, engineering, linguistics, literature, sports, games, as well as in governance, polity, conservation. Specific courses in tribal ethno-medicinal practices, forest management, traditional (organic) crop cultivation, natural farming, etc. will also be made available. An engaging course on Indian Knowledge Systems will also be available to Learners in secondary school as an elective. Competitions may be held in schools for learning various topics and subjects through fun and indigenous games. Video documentaries on inspirational luminaries of India, ancient and modern, in science and beyond, will be shown at appropriate points throughout the school curriculum. Learners will be encouraged to visit different States as part of cultural exchange programmes." All curriculum and pedagogy, from the foundational stage onwards, will be redesigned to be strongly rooted in the Indian and local context and ethos in terms of culture, traditions, heritage, customs, language, philosophy, geography, ancient and contemporary knowledge, societal and scientific needs, indigenous and traditional ways of learning etc. - in order to ensure that education is maximally relatable, relevant, interesting, and effective for our Learners. Stories, arts, games, sports, examples, problems, etc. will be chosen as much as possible to be rooted in the Indian and local geographic context. Ideas, abstractions, and creativity will indeed best flourish when learning is thus rooted." NEP 2020, page no. 16 Experiential learning (EL)'s review makes an effort to consider the role of EL on Learners' classroom engagement and motivation by inspecting its backgrounds and values. (Yangtao Kong, 2021). Learners' dissatisfaction, boredom, negative experiences, and dropping out of school are due to the low engagement in academic activities (Derakhshan et al., 2021). It is demonstrated that engagement is related to intelligence, interest, motivation, and pleasure with learning outcomes within many academic fields (Yin, 2018). EL is a teaching method which facilitate active learning through providing real-world experiences in which learners interact and evaluate the issues (Boggu and Sundarsingh, 2019). Based on the theory of Socrates, it is based on the strategies which allow learners to apply knowledge to real-life situations, which makes learning long lasting (Bradberry and De Maio, 2019). The learners acquire knowledge and apply in real-life situations to solve problems (Huang and Jiang, 2020). Therefore, it is expected that they would require hands-on materials but in reality, they just receive theoretical education (Green et al., 2017). EL, developed by Kolb in 1984, is focused on learning through experience (Sternberg and Zhang, 2014). EL is a method of teaching that allows learners to learn while "Do, Reflect, and Think and Apply" (Butler et al., 2019, p. 12). It encourages learners to be flexible learners, incorporate all possible ways of learning into full-cycle learning, and bring about effective skills and meta-learning abilities (Kolb and Kolb, 2017). Based on the literature available, the conventional role of the teacher shifts from knowledge provider to a facilitator and a reflective teacher. Likewise, teachers should motivate learners by providing information and relevant opportunities for learning where they can be engaged in positive but challenging learning activities that facilitate learners' interaction with learning materials (Anwar and Qadir, 2017) and enhances their interest being a member of the learning progression. By learners' active engagement in experiential games, the teacher can enhance their knowledge (Zelechoski et al., 2017). Indeed, this method helps learners think further than memorization to evaluate and use knowledge, reflecting on how learning can be applied to real-life situations (Zelechoski et al., 2017). In the context of EL, Learners often find activities challenging and time-taking which necessitates working in a group, performing work outside of the classroom, learning and integrating subject content to real life to make decisions, compare and contrast various information to identify the problem and its solution. Engagement, discussion, and application are basic characteristics of EL. Learners participate in mental, emotional, and social interactions/discussions/deliberations during the learning process within EL (Voukelatou, 2019).

## II. OBJECTIVES OF THE PROJECT OF THE SECONDARY ECONOMICS EDUCATIONAL KIT (SEEK)

The specific objectives of developing the kit are to review the existing material and develop educational kit in economics for secondary stage (classes 9 to 12), create awareness among Learners about the India's rich monetary heritage and contribution of Indian ancient economic thinkers to modern economic thinking etc., develop competencies of economics among Learners and empower them to make informed decisions and facilitate them in understanding of the themes/concepts/topics by using hands on activities such as working models, games and activities etc. and build capacity and enhance competencies of teachers for effective transaction in Economics. To make a learner a scientifically literate citizen as envisaged in the National Education Policy (NEP) 2020, there is an

imperative need for the learner to understand and apply the basic concepts, learn evidence-based information, develop desirable attitudes and value appreciation and learn scientific method to apply in solving problems and making decisions to improve everyday living and environmental conditions

For achieving these objectives, it is necessary to shift emphasis from rote, memory-based, content-oriented and teacher-centred method of teaching to hands-on, minds-on learning approaches like: activity oriented, problem solving and performance-based, l earner-centred approaches. These approaches would require learner to investigate, develop observation skills and record observations, structure, organise, communicate information and hypothesise, collect and analyse data, draw relevant inferences, design solutions and act accordingly. Thus, these approaches provide plenty of opportunity for thinking, reasoning and looking at social sciences in interdisciplinary as a highly rational, intellectual problem-solving human activity.

However, to make the best use of the learning situations, it is essential that the teacher is provided with effective learning materials in addition to the textbooks. Textbooks alone cannot provide the right learning material. Unfortunately, teaching of social sciences in India has been textbook-centred. We are attempting to improve this scenario by developing Secondary Economics Educational Kit (SEEK) along with detailed manual to facilitate the learners about the use of materials and to explore the concepts through activities interdisciplinary and inclusive in nature. Economics kit has been developed for the Secondary stage. This kit contains 42 types of items such as Card Sorting Game, Cube Solving, Kavad Book, Ring Toss Game, Comic Book, Quiz through Flash Cards, Crossword Puzzle, Flow Chart, Abbreviations, Picto Dictionary, Glossary, Booklet, Banking Ally, Electronic Board Game, Magnetic Board Game, Using Balance, Snakes & Ladders, Ludo, Spin and Play, Turn on Wheel, Wooden Bricks Game, Word Search Games, Diagram Set, Economics Equations, which can be used for performing activities for classes IX to XII as outlined in kit and manual.

#### III. CONCEPTUAL UNDERSTANDING OF THE KIT

There are two parts of the kit-Part 1 and Part II. Part I is easier than Part II based on the abstraction. Each part consists of three sections (A) Monetary Heritage of India, (B) Money, Banking and Financial Services and (C) Modern Economics. There are various activities in each section. There are forty-two items in the kit. Teacher's manual has been developed to provide detailed process of the activities.

#### A. MONETARY HERITAGE OF INDIA

Nine kit items/activities have been developed to create awareness among learners about the India's rich monetary heritage and contribution of Indian ancient economic thinkers to modern economic thinking etc.

#### (i) CARD SORTING GAME TO FAMILIARISE WITH THE HERITAGE OF INDIAN COINAGE

The card sorting game has been developed to understand the monetary heritage of India in interdisciplinary way. The card sorting game is not only a resource to understand the concepts of economics but also to understand the concepts of mathematics and computer science i.e. binary and ternary system. This game is to introduce the chronology of Indian coins as well as an understanding of the heritage of Indian coinage. A set of fifty-two printed cards on Indian Coinage in chronological order have been developed. Observation skill of recognizing pattern and symbol, analytical skill to explain the importance of coins as archeological sources and application of binary and ternary system will be developed among the learners through this kit item.

## (ii) CARD SORTING GAME TO UNDERSTAND THE CONTRIBUTION OF INDIAN THINKERS IN ECONOMICS

Ancient Indian thinkers have played a great role in every aspect of life. This game has been developed to understand the contributions of Indian thinkers in Economics in interdisciplinary way. Through this activity, learners will be able to understand the contribution of Indian thinkers on Modern Economics in a chronological order with the help of available Sanskrit literature in India. A set of cards in which, on one side the name of the thinker and the reference is mentioned, while on the back side the contribution of that thinker is printed and provided to familiarise learners about the contribution of ancient thinkers in economics, develop analytical skill to explain the importance of these thinkers in evolving modern economic principles and understand of binary and ternary system may be developed among the learners through this game.

(iii) BOOKLET TO UNDERSTAND ECONOMIC CONCEPTIONS GIVEN BY INDIAN THINKERS A Printed booklet which includes major economic principles of Indian thinkers has been developed to understand economic conceptions given by Indian thinkers of India. Indian ancient thinkers are a great source of knowledge. They have given their insights on education, society, politics, culture, religion as well as economy. Their ideas are referred to in various epics such as Vedas, Puranas, Ramayana, Mahabharata and many other sacred books. The major economic principles propagated by these thinkers related to modern monetary and economic system are compiled at one place and are made available to learners so that they are aware of our monetary heritage to understand the economic conceptions given by Indian thinkers, to compare these conceptions with modern economic principles, analyse and interpretation of these conceptions in evolution of modern economic principles.

# (iv) FLASH CARDS AND ROLE PLAY TO FAMILIARISE WITH THE CONTRIBUTION OF INDIAN THINKERS IN ECONOMICS

There are many economic thinkers in India since ancient times till today. Due to the limitation of curriculum, it is almost impossible to mention their contribution in text books. In this activity, awareness on the contributions of Indian thinkers in Economics has been provided through flash cards and role play. A set of cards imprinted with the achievements and contributions of economic thinkers of India has been developed on Indian Thinkers of India to familiarize the learners with the achievements and contributions of Indian thinkers in Economics.

# (v) QUIZ THROUGH FLASH CARDS TO INTRODUCE HISTORY AND FEATURES OF INDIAN COINAGE

Coins are the most important archaeological source to know the socio-political and economic history of India. With the help of these flash cards, Learners will be given information of Indian coins of different chronological period in the form of a quiz. A set of ten flash cards printed with the image of a coin and a question & its answer related to that period is kept in the kit to introduce history and features of Indian Coinage and for identification of coins and provide knowledge of key features of the coins.

#### (vi) WORD-SEARCH PUZZLE TO LOCATE TERMINOLOGY RELATED TO BARTER SYSTEM

The basic idea of this activity is 'learning by playing'. Learners will find out the important terminology related to barter system in this puzzle. It will assess their understanding of the concept of barter system as they have to identify important terms related to barter system through the puzzle. The skills like identification of related terms from the puzzle, knowledge of key features of Barter System and explanation of limitation of Barter System will be developed through this kit item.

# (vii) FLOW CHART (TO ANALYSE THE CONTRIBUTION OF WESTERN KSHATRAPAS IN INDIAN COINAGE)

Important terms related to Mauryan and Post Mauryan coinage are placed in a crossword puzzle. By arranging them vertically and horizontally, the students will find out these terms and will relate them with this period. A crossword puzzle mentioning major terms of this period is kept in the kit. Skills such as identification of terms, enhance the processing speed and logical thinking of the students will be developed through this item.

# (viii) FLOW CHART TO ANALYSE THE CONTRIBUTIONS OF WESTERN KSHATRAPAS IN INDIAN COINAGE

The basic idea behind this activity is to fill in the information by arranging the blocks appropriately in the flow chart. Students will be familiarised with the features of coinage during the western kshatrapas. A flow chart depicting coinage information of these rulers is kept in the kit to provie knowledge of Western Kshatrapas, analyse the reasons of arrivals of Western Kshatrapas and significance in Indian Sub-Continent

#### (ix) ELECTRONIC BOARD GAME TO UNDERSTAND THE KEY FEATURES OF MONETARY SYSTEM OF DELHI SULTANATE, VIJAYANAGAR EMPIRE AND DECCAN EMPIRE

Delhi Sultanate, Vijayanagar Empire and Deccan Sultanates have a great significance in Indian Monetary History. With the help of an electronic board, the student will know the key features of monetary system and coinage of these kingdoms. An electronic board with the information of monetary system and coinage of this period is kept in the kit to disseminate knowledge of monetary and coinage system of this period through this kit item.

#### **B. MONEY, BANKING AND FINANCIAL SERVICES**

# (i) KAVAD BOOK TO UNDERSTAND THE MINIMUM SUPPORT PRICE (MSP) AND RELATED ECONOMIC TERMS

This is an activity based on a traditional handicraft of Rajasthan named 'KAVAD'. This local handicraft acts like a 'KAVAD BOOK'. In ancient time, on the occasion of marriage, childbirth etc. 'KAVAD' was used to chant Ramayana, Mahabharata, Krishna etc. The 'KAVAD' has been adapted to explain various concepts of economics. The comic 'Kavad book' mentioning all these major concepts of Economics is kept in the kit to understand the concept of MSP, Buffer stock, Farmer's dilemma on crop pricing, law of demand, and Role of CACP and FCI, to inculcate team building spirit and leadership, enhance expression and communication, time management, creativity and art of story telling

#### (ii) COMIC BOOK TO UNDERSTAND THE CONCEPT OF MONEY

This is an activity based on a comic book. This small comic book tells us the story of money as medium of exchange from barter system to present day's digital money like UPI and mobile banking. A Comic book with the concept of Money, the limitations of barter system, how UPI and mobile banking have eased every day's transactions to promote cashless economy has been kept in the kit to understand the concept of money and payment systems, team building and leadership, encourage expressions, art of story-telling which is India's age-old tradition and time management

## (iii) SNAKES AND LADDERS TO DEVELOP AWARENESS ABOUT MAKING SAFE FINANCIAL TRANSACTIONS

This is an activity based on India's indigenous game i.e. snakes and ladders. Through this game, learners will be made aware of safe and risky practices of using passwords for financial transactions. They will learn about the Do's and Don'ts of using passwords for secured financial transactions. Snakes and Ladders Game in tactile and Braille is also a part of the kit to make it accessible to the children with disability i.e. visual impairment. Understanding the Do's and Don'ts related to passwords used for financial transaction, team building and leadership, stress management, develop presence of mind and decision making will be developed through this board game.

#### (iv) LUDO TO UNDERSTAND BASIC BANKING TERMINOLOGY

This is an activity, based on India's indigenous game i.e. Ludo. The game is adapted to make children understand various banking terminology by using a glossary of the terms. Ludo board and glossary of banking terms in tactile and Braille is also a part of the kit to make it accessible to the children with disability i.e. visual impairment. The game will provide knowledge of banking terminology and awareness of safe banking practices.

#### (v) RING TOSS GAME TO IDENTIFY VARIOUS CURRENCY NOTES AND CULTURAL HERITAGE

In this game, a hard board printed with modern Indian currencies (both sides) is provided. A hardboard printed with currencies, rings and sticks are kept to identify Indian currency notes and to develop communication skill and collaboration/team work.

## (vi) ELECTRONIC BOARD GAME TO DISCRIMINATE BETWEEN THE DO'S & DON'TS WHILE USING ATM

This is an activity, based on electronic board. Through this game, the students will learn the things to be kept in mind while using ATM by pressing the button of DO and DON'T. Electronic board with the statements given on the precautions during use of ATM will develop the ability to discriminate between Do's and Don'ts while using ATM.

#### (vii) BANK CHEQUE TO DEVELOP AWARENESS OF FILLING A BANK CHEQUE

Through this activity students will be able to fill the cheque correctly so that amount may be deposited in their account on time. These cheque leaves may be erased easily so that each student can get a similar opportunity. A set of blank leaves of cheque made on glossy paper will help in understanding the importance of cheque and learning of steps to fill the cheque.

### (viii) BANKING ALLY TO UNDERSTAND BANKING FUNCTIONS AND ICONS

Banking icons are stamped on flex board and questions are written on flash cards. Flex board imprinted with banking icons related to banking functions, striker and questions written on flash cards will help in developing awareness about banking functions and dentification of banking icons.

### (ix) FLOW CHART TO UNDERSTAND THE ROLE OF FINANCIAL REGULATORS

The activity includes complete information related to the roles and functions of four main financial sector regulators, in a flow chart. Students will be able to know about the four financial regulators and understand their functions. A flow chart showing names of the regulators and their major functions will provide knowledge of the important financial regulators, their establishment and the major functions they perform, help in sharing of information with the class and developing communication/public speaking skills.

### C. MODERN ECONOMICS

### (i) SPIN AND PLAY TO UNDERSTAND THE CONCEPTS OF MACROECONOMICS

Through this activity, students will know various concepts of Macroeconomics such as GDP, GNP, National income, Fiat money, Fiduciary money, RBI, Commercial Banks etc. A mechanical wheel-board printed with the major concepts of macroeconomics and a set of printed cards with the related answers will help in understanding of major concepts of Macroeconomics, observation skill, enhanced presence of mind and cooperation and participation for teamwork.

### (ii) MATCHING FLASH CARDS TO FIND OUT ECONOMIC EQUATIONS OF MACROECONOMICS

The objective of this activity is to facilitate students to learn economic equations easily through an interesting and fun-based activity. Two sets of cards in which economic terms are printed on one set and the equations are printed on another set of cards will provide knowledge of economic equations, develop ability to corelate the appropriate terms with equations and team coordination and participation.

#### (iii) PLAYING CARDS TO CALCULATE NATIONAL INCOME

The activity includes three packs of customized playing cards. These cards have been created to facilitate students to understand various transactions used to calculate National Income (NI), understand NI through income method, expenditure method and value-added method. One note pad to record results and a pack of customised playing cards is kept in the kit to help in understanding the concept of calculating NI, ddifferentiating between final goods and intermediate goods and calculation of national income through various sources of income, expenditure and product methods.

### (iv) ARRANGING CUBES TO IDENTIFY THE KEY CONCEPTS OF MACROECONOMICS

This is an activity, to be conducted on a 2 x 2 square cube. On each square of a cube, an economic term is printed. There are 24 squares (terms) on the cube. Four terms are related to an economic concept, hence, there will be six concepts in total. The students will arrange cubes in such a way, that all the four terms of an economic concept will be on one side of the cube. A square cube printed with the four economic terms of each of six concepts of Macroeconomics and a booklet in which six major concepts along with related economic terms are mentioned are kept in the kit to help in understanding the major concepts of Macroeconomics, solving the cube puzzle, better handeye coordination and critical thinking.

### (v) CHESS TO ANALYSE THE COMPONENTS AND CHALLENGES OF ECONOMIC DEVELOPMENT

India's indigenous game i.e. Chess is a part of the kit. Just like the black and white chess tokens, there will be two sets of tokens-one, representing components of economic development and the other, challenges in economic development. Both sides will have a KING which will be the most important factor in Economic development on one side and the most challenging factor on the other side. The rules of the game are same as of chess game and each token on both sides will represent various components/factors leading to economic development on one side and economic challenges on the other side. If the negative/challenge side token defeats the positive/development side token, it will indicate that the economy is facing challenge in the path of economic development. Whereas if the positive token defeats the negative token, it will indicate the positive steps taken by the Government/Central Bank etc. for the economic development of a country. Chess in tactile and Braille is also a part of the kit to make it

accessible to the children with disability i.e. visual impairment. Chess will help in analysing the components of economic development and its challenges, recognition of pattern, stress management, strategic planning and creative thinking.

# (vi) CARD SORTING GAME TO FAMILIARIZE WITH THE TIMELINE ON POLICIES OF INDIAN ECONOMIC DEVELOPMENT

Government takes many initiatives and comes out with policies for economic development. Through this activity, learners will be introduced with the timeline on economic policies of the government since 1757 to the present time. Observation skills (Retention and assimilation of knowledge gained), analytical skill to explain the importance of these policies on Indian economy & society and understanding of binary and ternary system will be developed among the learners through this game.

#### (vii) WORKING MODEL TO UNDERSTAND THE CONCEPT OF INVESTMENT MULTIPLIER

Investment and National income are important components of Economics. Although, it is very interesting yet very confusing to the students. Through this working model, students will understand the concept in a simplified way. A mechanical working model with the mechanism of Investment Multiplier and its graphical presentation is kept in the kit to help in understanding the concept of Investment Multiplier and application of actions of Investment Multiplier.

#### (viii) WORKING MODEL TO UNDERSTAND THE CONCEPT OF DETERMINATION OF PRICE

Price is determined by two major market forces, i.e.; demand and supply. Change in demand or supply will affect the determination of price. Through this model, students can easily understand the concept. A working model based on the mechanism of shifting positions in the curves due to change in demand/supply is part of this kit. It will help in understanding the concept of price determination and application of shift of demand/supply curve on price determination.

#### (ix) DIAGRAM SET TO UNDERSTAND THE VARIOUS CONCEPTS OF ECONOMICS

A set of Diagrams has been developed to understand the various concepts and their significance. It will help in understanding the various concepts of Economics and developing skill to draw diagrams based on these concepts.

#### PROJECT FORMATION IN ECONOMICS AT SECONDARY STAGE

NEP 2020 focuses on problem solving pedagogy to foster higher order thinking skills and practical understanding of learning content. In this regard project-based activities of students become more important. There is great need to adopt project-based pedagogy. The project-based pedagogy definitely makes subject teaching easy and interesting and students will able to apply subject knowledge in real life. It is possible through project work development by students. A project work is a planned and formulated piece of study work or problem taken up by the learners, either individually or in a group by using their abilities, interest, personal experience and aptitude. The project work progresses under the guidance and monitoring of a teacher or other adviser. It follows the approach of 'Learning by Doing'. On other hand, project work is work which focuses on completing a task by learner by using their knowledge, skills and experience etc. under the supervision and guidance of teachers and advisors. But in our schools due to little understanding about project work and lack of keen interest of students and teachers, project works are not so popular. Therefore, the project format given in the manual will be helpful and beneficial for secondary school economics teachers and students.

#### CONCLUSION

This paper presented the details of the project and the applicability of Secondary Economics Educational Kit (SEEK) interdisciplinary and inclusive to be used by teachers and teacher educators and in learning-teaching of Economics. The details of kit items have been presented. There is need to prepare Audio-Video Guide including Sign Language (A-V Guide including SL) of various activities using items of the SEEK interdisciplinary in nature alongwith Manual for classes 9 to 12 and develop supportive resources for audio-video including sign language programs, digital resources, documentaries, interactive multimedia graphics, animations etc. to inculcate important life skills-economic and financial skills for holistic development of the learners as the policy states 'hands-on learning will be adopted in all stages. The aim of education will not only be cognitive development, but also creating holistic and well-rounded individuals equipped with the key 21st century skills." *page no. 12.* National Education Policy (NEP) 2020 further envisaged "The Digital India Campaign is helping to transform the entire nation into a digitally empowered society

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and knowledge economy. ... "The thrust of technological interventions will be for the purposes of improving teachinglearning and evaluation processes, supporting teacher preparation and professional development,... assessments, etc." *page no. 56 & 57.* There is also need of training of teachers and teacher educators on use of the kit as the National Education Policy (NEP) 2020 envisaged, 'Teachers will be given continuous opportunities to learn the latest innovations in their professions in multiple modes, including in the form of local, regional, state, national, and international workshops.'...Continuous Professional Development (CPD) opportunities will, in particular, systematically cover the latest pedagogies...competency-based learning, and related pedagogies, such as experiential learning, sports-integrated etc." page no. 22... 'Education is the single greatest tool for achieving social justice and equality.' page no. 24. The dissemination of the kit in schools and training of the teachers/teacher educators is the need of the hour to implement NEP 2020 successfully.

#### ACKNOWLEDGEMENT

The researcher would like to thank MOE and NCERT for the support of this project. She also acknowledges the contributions of the online resources used in writing of the paper and contributions of Shri Baldevanand Sagar, Dr. Ved Prakash Mishra, Dr. Sudyumna Acharya, Shri Ashutosh Tripathi, Prof. A. K. Jain, Prof. N. K. Bishnoi and Prof. Hukum Singh in the development of the Kit.

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