Impact of UDL on Practising Seven Cooperatives of ICA: A Big Picture

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Abstract:- Today is the age of inclusive learning environments that promotes diversity and accept a variety of learners' backgrounds. When learners enter their professional lives, they have to abide by certain principles of inclusivity like those seven co-operatives of ICA. The research required a thorough investigation of work already done in the concerned fields. So a systematic review was conducted followed by semi-structured interviews. So the research methodology was purely qualitative. Findings indicated that the impact of the UDL on the following seven co-operatives of ICA has not been studied from any angle. So, it was unique research in itself and the results indicated that there is a definite positive impact of studying UDL on the professionals of tomorrow.

Keywords:- UDL, ICA, Cooperative Learning, Inclusive Learning, Pedagogy

I. INTRODUCTION

It is difficult to give a clear picture of what learning means, as well as teaching and imparting knowledge. Contributing to teachers working research-based while students can benefit from the implementation of various tools in school work has led to the choice of subject in this study. The research on UDL has mostly been from the USA. There are differences in how learning and its conditions are perceived in different countries and cultures, whereupon what works in one country cannot be copied to another with the belief that it will lead to the same result. This has led various researchers to contribute knowledge in the form of researches on implementing UDL in different contexts and study teachers' learning from socio-cultural perspectives.

There is good knowledge and high ambitions in the teaching staff to be able to conduct business-oriented and research-based development work, but a recurring problem is that there is a lack of time and opportunity to conduct it. There is no method that has an effect on all students in all classrooms, and it is impossible to focus on only one or a few factors and conduct teaching on prescription. In the professions like teaching, scientifically acquired knowledge and knowledge acquired from proven experiences are equal, and must complement each other (Fornauf, & Erickson, 2020). Since there is a great emphasis on the importance of business-related research in the for the institutions to be experienced as making a difference for all students, the choice for this area fell on a business-related study.

Today is the incessantly emerging era of start-ups where the focus of every country's government is on providing maximum relief to the newly budding start-ups. But the question is how are the entrepreneurs being trained in their learning environments for being future entrepreneurs? This question has compelled us to come up with this research in which UDL (the new normal in pedagogy) will be investigated through the lens of scepticism. It will be investigated if the basic principles of recognition, engagement and expression cater to the seven co-operatives of ICA that are followed by those who want to make this world a better place.

➢ *Rationale*

This research will try to push the borders of knowledge about Universal Design (henceforth UDL) for Learning by spotlighting it from a unique angle. UDL aims not only teaching in an inclusive manner but also, imparting that inclusiveness among the learners, so that they learn to co-operate and work together. International Co-operative Alliance (henceforth ICA) coined seven principles of co-operation mentioned in the introduction section. This research will establish the connection between the basic tenets of UDL and seven co-operatives of ICA.

➢ *Research Questions*

Keeping the above mentioned rationale in mind, following research questions have been posed:

- Is there any impact of UDL pedagogy on the learners in practicing seven co-operatives in practical life?
- How can UDL aid in imparting seven co-operatives in learners?
- How do three UDL principles align with 7 co-operatives of ICA?

➢ *Research Objectives*
- To explore the impact of UDL pedagogy on the learners in practicing seven co-operatives in practical life
- To critically evaluate the role of UDL in imparting seven co-operatives in learners
- To analyse the alignment of three UDL principles with 7 co-operatives of ICA

➢ *Problem Statement*

UDL is made possible through project-based learning (PBL) and co-operative learning (CL) (Taylor, 2016). When it comes to co-operation, students, learning in a UDL

environment, not only get to know how to work in groups, but also how to resolve problems while working in groups (Hall et al., 2012). Such a practise makes them ready for the field life in which they are heavily exposed to teamwork and problem solving as a group (Fovet et al., 2014). Those being taught in a UDL environment, have already been exposed to different co-operatives because of the three UDL principles being rigorously implemented in their classes. Studies up till now have largely focused on the UDL principles being practised in classroom and their effectiveness within the bounds of classroom or for improving the term results (Boothe et al., 2018). There needs to be concrete study that links the learning occurred through UDL with the practical life. Thus, this study explores the practical impact of UDL when it comes to seven co-operatives of ICA (voluntary and open membership, democratic member control, members' economic participation, autonomy and independence, education, training and information, cooperation among cooperatives and concern for community).

II. LITERATURE REVIEW

Considering the research questions presented in chapter one, this review adopts the strategy of systematic review to connect the dots. Surprisingly, there has been no research in the context of linking UDL with seven co-operatives. Equally important is the fact that to connect both the ideas, a sound basis needs to be established to highlight the importance of UDL principles and seven ICA cooperatives individually to later conduct a research that links the both.

➤ *PICO question*

In this regard, a PICO question has been formulated for conducting a systematic review:

- **For learners being taught through UDL principles, is UDL pedagogy a more effective strategy as compared to other traditional teaching methods for imparting seven cooperatives for practical life?**

This question can be broken down into parts as follows:

Table 1 PICO

Population	Leaners being taught UDL
Intervention	UDL pedagogy
Comparison	UDL pedagogy with traditional pedagogy
Outcome	Effective demonstration of seven cooperatives

Following the above question, key terms were decided to be searched on various search engines including Google Scholar, Microsoft Academic and CORE. Inclusion criteria of the researches and studied included key terms, decided themes, and relevance with the topic. Exclusion criteria included unpublished research papers, those published before 2018, and those not peer-reviewed. Books, reports, conference papers were all considered as far as they met inclusion criteria.

➤ *PRISMA chart*

PRISMA chart for the selection and screening of researches is given below:
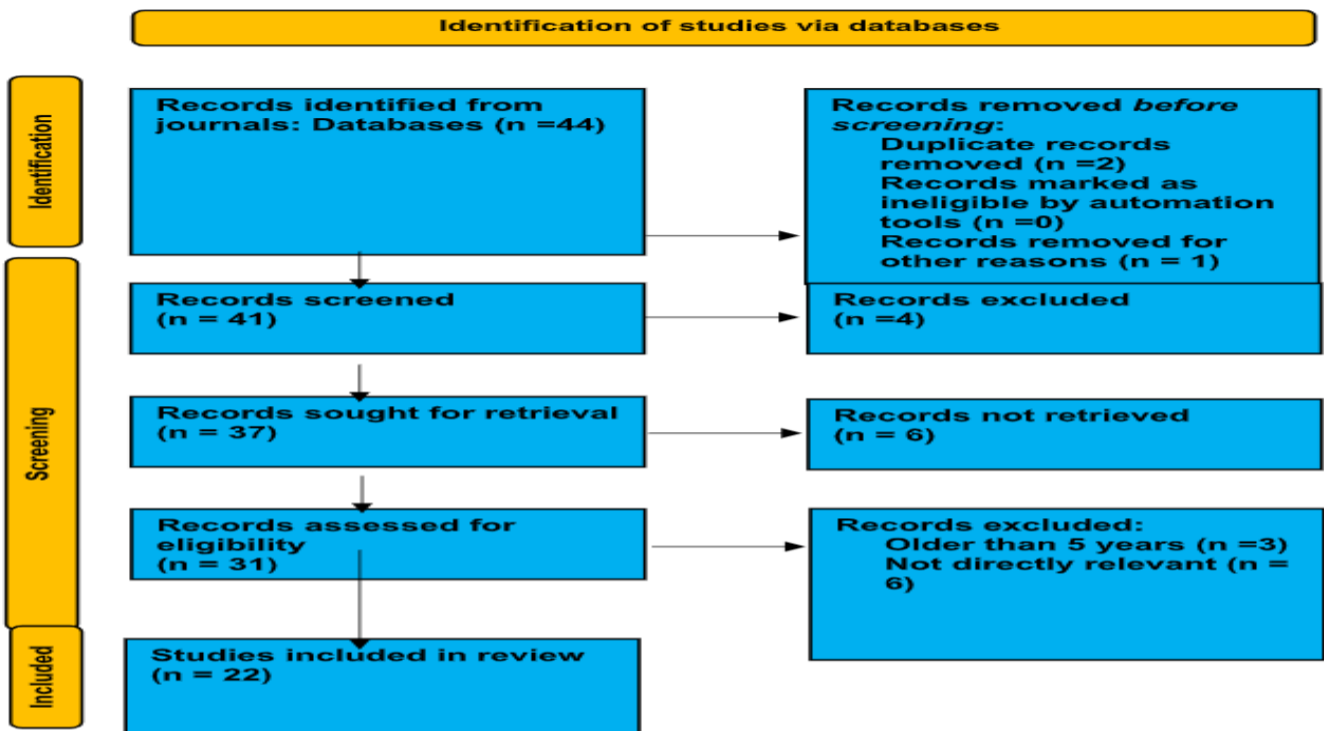
- *Integrative*

Fig 1 PRISMA Chart

➢ *Themes*

Obtained articles were divided into the following sub-themes considering the context of the posed hypotheses:

- Impact of UDL on learners
- UDL as a transformative pedagogical practice
- UDL as a means of imparting cooperation

These three themes and papers found under their category are critically evaluated below:

➢ *Impact of UDL on Learners*

According to AlRawi and AlKahtani (2021), Universal Design for Learning (UDL) provides a theoretical framework for the concept of learning that addresses the accessibility of learning content and welcomes student diversity. Accessibility is considered here in terms of minimizing barriers, an idea that is central to many approaches to implementing inclusive education with the aim of ensuring that all learners participate in learning (Lanterman, & Applequist, 2018). The participation of all students in education is a pressing social and political issue. The growing diversity of students should be welcomed and served as a resource. In this context, inclusion is defined as a term denoting an appreciative and welcoming approach to diversity. UNESCO also mentions education in the Sustainable Development Goals. It directly relates to inclusive education. By 2030, education systems around the world must adapt to student diversity (Housel, 2020). All people, regardless of background, should have access to and be able to participate in education. This will also allow realizing the right to education (Tobin, 2021).

The main assumption of UDL is that mono-modal learning approaches tend to be geared towards the "average student" and create barriers for many other students (Mayes, 2020). Roski and others (2021) point out that the multimodality of the learning environment is created by a variety of forms of presentation, processing, and motivational or motivation-supporting elements in the learning environment. Figuratively speaking, UDL puts the what, how and why questions at the centre of lesson planning. The concept of UDL is widely used in many approaches around the world. It can be shown that all learners, not just learners with special educational needs, can benefit from a UDL-based learning environment. It has also been a guide to systemic education reform after the COVID-19 pandemic (Gidden, & Jones, 2021).

In their study, Craig and co-workers illustrated that pedagogical practices, from the perspective of inclusive education, are ways of teaching that can range from the arrangement of spaces, organization of time, use of technologies to the elaboration of material resources, ranging from the whole to the most individualized. However, school inclusion is not limited to school activities in the classroom carried out by the regular school teacher. They are just one of the elements that must be ensured in the school curriculum that aim at a good schooling for all students, with and without special educational needs.

Based on Schreffler and co-workers' findings (2019), inclusive school also requires the participation of the entire school team - school management, teachers, specialized professionals, family, students and the community in general - in the construction of an identity and collaborative culture for the development of more comprehensive practices for access and learning for all students. For Cook and Rao (2018), when teachers present content in a variety of ways, it can be assimilated more effectively. Often, the use of the same means of teaching does not allow everyone to learn. On the other hand, the decision to present the same activity in another way can result in the understanding of that student who was unable to learn and even contribute to other students understanding a certain subject better. In this sense, the UDL can be a potential ally of collaborative work to favour school inclusion, as it converges on a common objective: the construction of accessible pedagogical practices for the schooling of all in the common education classroom through partnership, collaboration between regular and special education teachers and/or other specialized professionals (Häggblom, 2020).

➢ *UDL as a Transformative Pedagogical Practice*

To demonstrate the role of teaching and learning centre in enhancing transformative learning, Ableser and Moore (2018) came up with a research according to which, being faced with the challenge of transforming ordinary schools into inclusive and favourable environments for everyone to learn, in 1999, in the United States, the Universal Designer Learning (UDL) concept emerged. The UDL consists in the elaboration of strategies for accessibility for all, both in physical terms and in terms of services, products and educational solutions so that everyone can learn without barriers.

According to Podlucká's work (2020), it is not about following a pedagogical preference or a teaching model, but an emphasis on the need to renew practices due to the transformations of current educational reality which, unfortunately, still seems to point to a fundamental antagonism between the student population served. currently and the curriculum, called one-size-fits-all, which is offered in a standardized, plastered and imposed way. The UDL consists of a set of research-based principles and constitutes a practical model that aims to maximize learning opportunities for all students. Thus, instead of thinking about a specific adaptation for a particular student, in a certain activity, different ways of teaching the curriculum to all students are thought. When elaborating concrete materials for the learning of mathematical content for a blind student, for example, such a resource is usually thought and adapted for the target students of the class, however, from the perspective of the UDL, the same material can be used by all. of the classroom, in order to benefit other students in understanding the contents taught.

In accordance with the three guiding principles of the UDL, Kennette point to the importance of thinking about the "diversity of the learning process" when designing education for all, because if each student's way of learning is not respected, there is a risk of continuing traditional

education, homogeneous and excluding, in which the student and many others do not have a chance (Kennette et al., 2019). In this way, the purpose of the UDL seems to meet the principles of Inclusive Education, as it is understood that it is important, in partnership with specialized teachers and other professionals, to develop resources, materials, activities and educational and flexible spaces for learning. of all students, thus contemplating diversity, different learning styles and rhythms.

The use of the principles of universal design in education makes it possible to create conditions for real inclusion in the learning process of students with a wide variety of educational needs, to overcome both formal inclusion and problems caused by the bias of criteria towards physical accessibility and reducing all accompaniment to defectological assistance. For students with special educational needs, it provides the necessary ongoing support in the process of mastering the general curriculum: not only support by narrow specialists in individual classes, but every day, in every lesson by each teacher - through flexible programs (Fovet, 2021).

The concept of universal design implies the creation of a barrier-free environment that includes accessibility, comfort, safety and information content. Conditions are created for free movement, the most comfortable functioning, successful self-realization of the individual (Salonen, & Siirilä, 2019). Almost a third of the population is made up of people with so-called disabilities who experience difficulties in self-care and movement: in addition to the disabled, they include people with baby strollers, with temporary health problems, older people, pregnant women, etc. Any person at different periods of his life can be in this group. In this regard, the state and society should turn their attention to this problem, creating a comfortable environment for human life, providing conditions for solving socially significant problems (Bradford et al., 2021).

The world community at this stage of its development pays enough attention to the creation of a barrier-free space. This problem acquired particular relevance in foreign countries in the postwar years due to the emergence of a large number of people with various physical and mental disorders (Seok et al., 2018). UDL is identified as a theoretical-practical framework for teaching practice from an inclusive perspective. Some administrations have incorporated this model into their policies to promote inclusive education and work to achieve Sustainable Development Goal 4, as is the case of the US, Chile, Uruguay and Colombia in the international arena or, in the Spanish context, in some autonomous communities (Lunasco, 2018). Together with the policies that promote and make it possible to advance in this direction, strategic measures are needed to achieve the involvement of the educational community, teachers, management teams, and educational administration, among which it is identified by its strategic role training in inclusive teaching models (McNutt, & Craddock, 2021).

➤ *UDL as a means of imparting cooperation*

In their research on combining Accessibility Services (AS) teams with those of faculty members in educational institutions, Black and Fraser (2019) assert that cooperation and collaboration between both the teams can yield more efficiency in terms of teaching UDL and maximizing learning output of students. When teaching teams will collaborate, their impact will automatically shift towards learners as they follow teachers as their role models. In one of the chapters of the handbook produced in the domain of inclusive education discourse, Maapola-Thobejane (2022) opine that effective inclusive education is heavily dependent upon teacher, collaboration, organization, and motivation (TCOM) pyramid. Having mentioned collaboration as one the four essential blocks of the TCOM pyramid, Maapola-Thobejane spotlight the fact that collaboration is one of the major tenets that could be considered as a parameter to measure the effectiveness of inclusive education.

In a book chapter from another book written on the role of UDL in improvement of inclusive education, Galkienė and Monkevičienė (2021) argue that inclusiveness is the major tenet of education and "prerequisite for the pupil's becoming an expert learner". This phrase signifies deep-rooted connection between learning and collaboration as inclusiveness calls for cooperation and collaboration in the very first place. In connection with demonstration of hoe UDL can add flexibility to the way collaborative activities are planned in online classes, Gronseth and Bauder (2018) produced a research that revealed the importance of UDL in this context. The researchers found UDL to be liberating the rigid idea of online classes where collaboration is just a concept but its implementation is a back-breaking task. This transformation is made possible through the use of different technological tools that aid in cooperation and collaboration. To further emphasize the significance of incorporating latest technologies in UDL to promote cooperation among learners, Quintero and co-researchers performed a research titled "CooperAR: promoting educational inclusion through augmented reality" (2021). The researchers propose CooperAR methodology in which students and teachers co-create content through AR and needs of all the students are considered illustrating the implementation of cooperative learning to its fullest. The proposed methodology was validated by a case study that showed positive results of learners who learnt through this methodology.

➤ *Conclusion*

Summing up the researches analysed above, UDL has immense scope in the field of teaching-learning. Various aspects of this paradigm have been explored by innumerable researchers since the inception of the concept and there are still developments to be made to further the scope of UDL. Although, teaching-learning context has been explored much in-depth but use of the learnt UDL tenets in the longer run has not been researched. Considering this point, it is pertinent to come up with a comprehensive study of connection between UDL and cooperatives endorsed by ICA. This study thus bridges the gap between UDL and its impact when comes to practical implementation of the learnt concepts in practical life. Here, practical life means where

an individual is able to apply what they have learnt in their job place or business. Upcoming chapter discusses research methodology chosen for conducting this research.

III. RESEARCH METHODOLOGY

Considering the research questions, this research two of three focus on 'how' of the phenomena. So Qualitative research is pertinent in this scenario. A qualitative approach is a research procedure that produces observable picture data, a particular tradition in the social sciences that fundamentally relies on human observations in its own area and relates to those people in its language and terminology. Following the tenets of qualitative research, this paper made use of phenomenology to find answers to the coined research questions.

Phenomenology is the application of qualitative method in order to explore and reveal the similarity of meaning of a concept or phenomenon that becomes the life experience of a group of individuals. One of the important points that become the advantages of phenomenological studies is that the experiences hidden in the philosophical and psychological aspects of individuals can be revealed through narratives so that researchers and readers seem to be able to understand the life experiences experienced by the research subjects. The purpose of phenomenological research, as mentioned earlier, is to reduce individual experience of a phenomenon into a description that explains the universal essence of the phenomenon. Phenomenologists seek to "understand the essence of a phenomenon."

➤ *Sample*

Considering the time constraints, four persons were interviewed. Two of them do not have exposure to the principles of UDL but work in the corporate sector, so they know and practice seven co-operatives. Two other participants have some knowledge of seven co-operatives and have studied UDL, so they can make a connection and projection of UDL on the practice of co-operatives. Considering the context of Pakistan, it was very hard to find a person who has studied UDL and is practising co-operatives at the same time.

So two participants having exposure to co-operatives and two having studied UDL was considered the best choice in this regard.

➤ *Tools*

To study the phenomenological perspective, in-depth interviews were conducted online on Zoom and were then transcribed. Interviews consisted of seven open-ended questions. Before designing questions, personas of the participants were considered. As two of the participants did not have direct exposure to UDL, technical terms of UDL were omitted and the same concept was delivered through the presentation of scenarios to enable the participants make an easy connection. The other two participants were asked questions more technical on UDL side and lesser technical on co-operatives side. So two questionnaires were designed to meet the needs of personas. Interviews took a total of 50 minutes of each participant.

➤ *Ethical Considerations*

As part of the process in collecting data for research, each researcher is responsible for ensuring that issues related to ethics and research procedures are conducted and reported transparently. Fornauf (2020) describes several standards that researchers need to adhere to in order to reduce risk or harm to study respondents. Among the important aspects that were taken into account while conducting the interviews were: The respondents would remain anonymous or in other words, the true identity of the respondent would not be disclosed by the researcher; The data collected would be managed in a secure manner and considered confidential; Study respondents were given a clear description of the study conducted and why they were involved in the study; The involvement of respondents was based on their consent. Before conducting interviews, informed consent was obtained from the participants and privacy of their identity was ensured.

➤ *Result*

Table 2 Descriptive Analysis of Respondents

SR.NO	Name	Gender	Age	Designation	Experience
1	Khalid Hanif	Male	45	Deputy Director @Ministry of Commerce	18 years
2	Atif Hanif	Male	34	Associate Manager @Immentia SMC Pvt.Ltd.	10 years
3	Naila Kamran	Female	26	Program Manager @Easyfresh Technoy (NSTP)	7 years
4	Ayesha Shah	Female	25	Freelancer	7 years

Table 3 Themes and Codes

SR. No.	Theme	Codes
1	UDL & Collaboration	Group-work Pair-work
2	Engagement & cooperation	Motivation Involvement Participation
3	Expression & cooperation	Action Projects Activities
4	Cooperatives & UDL	Voluntary & open membership Democratic member control Members' economic participation Autonomy & independence Education, training and information Cooperation among cooperatives Concern for community

❖ *Analysis*

➢ *Data Analysis Tools*

Data obtained through in-depth interviews was analysed through NVIVO software after doing thematic coding of the obtained transcripts. Qualitative data analysis manually is a tiring, strenuous, and time-consuming job because the data generated is very large, diverse, and unstructured. However, this problem has been solved with the use of computer-assisted qualitative data analysis software NVIVO. NVIVO helps researchers to store, organize, and explore data easily and minimize the risk of damage to original data. NVIVO has the ability to search, link items, code, perform queries, annotate, and map research data.

IV. DISCUSSION

➢ *Theme 1 UDL & Collaboration*

According to one of the participants, the Universal Design for Learning (UDL) pedagogical applications project offers teachers, educational advisers and all school stakeholders in higher education (colleges and universities) support in planning lessons that meet both the specific needs of students with disabilities and those of all students in the class. The universal design for learning (UDL) seeks to transpose the principles of accessibility developed in architecture to the school context. In this context, the access ramps must become, so to speak, "cognitive ramps" through planning centred on the anticipation of possible barriers to learning and success and, in as much as possible, the implementation of judicious strategies to mitigate it. Universal Design for Learning (UDL) therefore represents an educational strategy that benefits all students, whether or not they have special needs. Respondent C was of the view that collaboration is an important skill to function well in society. Cooperative learning allows students to practice this skill in practice. A teacher does not have to wait until students are in the upper years with this, they can already start in groups.

➢ *Theme 2 Engagement & cooperation*

Based on participant D's opinion, a high degree of student involvement is normally seen as an indicator of success in the teacher's profession. However, getting this level of engagement into the modern classroom can be challenging. This task is also complicated by the fact that a teacher can measure student engagement in several ways, and the concept has no individual universally accepted definition. At the same time both participant C and D are on the same page that achieving high levels of student engagement is vital to academic success and teaching excellence. Ultimately, students are much more likely to store valuable information much better and develop a meaningful and complete knowledge of a topic whose lessons they find enjoyable, interesting, useful, convenient, and important. To create this level of student engagement in the modern classroom, it is important to deploy both the right student engagement strategies and the right student engagement activities. These elements, combined with a skilled teacher, help students to maintain concentration and to invest in their own studying on an emotional level, with the result that study results improve and lessons are more valuable.

➢ *Theme 3 Expression & cooperation*

While endorsing multiple means of expression to endorse co-operation, participant C asserted that team builders are short activities of approximately 5 minutes, which students work on in groups. The students are first given independent thinking time; after which they share their findings with their group. This way everyone gets the chance to share their idea and students help each other further. According to the teacher, team builders make students work harder, try harder and develop a greater sense of responsibility.

➢ *The following points can help set up team builders:*

• Assemble in groups as a teacher and have better control over the learning process.
• Change the group composition regularly, thus stimulating cooperation between different children.

- Take into account the level differences of students, thus encouraging the students to help each other with the teaching material within groups.
- Have students come up with a team name, thus promoting group feeling and stimulating cooperation as a team.

"Such activities encourage students to form an opinion on a topic and discuss it with peers that enhances their co-operative skills", describes one of the respondents. Students develop more respect for each other and their own self-confidence also grows.

➤ *Theme 4 Cooperatives & UDL*

Cooperative learning allows students to work together in a structured way while sitting in small, usually heterogeneously composed groups. In this way the students not only learn from the interaction with the teacher, but also from the interaction with each other. The 'strong' pupils are models for the 'weaker' pupils and help them. In turn, the strong students gain more insight into the subject matter through the explanations they give to others. The teaching methods are designed in such a way that all students have an equal input. And that stimulates learning: students are actively involved with the subject matter. For example, they talk about it with each other, which makes the content of the material more meaningful to them. In addition, the students also learn to work together better.

➤ *There are seven keys that make this way of working successful:*

- didactic structure; the working methods you choose
- teams; how and when to put together groups of students
- class management; structuring the collaboration, for example with working agreements
- team builders; students learn to work together
- class builders; focus on positive group formation
- Social skills; necessary to work cooperatively and students therefore develop them further
- Working with the basic principles of GIPS

V. CONCLUSION

Summing up the research, it can be finalized that impact of UDL on learners is undeniable. In the light of responses, it can be put forward that pedagogical technique adopted for teaching the students impacts their lives in the longer run. When exposed to UDL methodology for years, students would learn collaboration and cooperation that would become the way of their lives. In that case, signing a pact for cooperation would not be the need. If signed, a past like seven cooperatives would be easier to commit to.

FUTURE CONSIDERATIONS

Due to time and resource constraints, this research could not take the direct stakeholders (teachers and students) into account. For future work, researchers can focus on conducting ethnographic study or a case study to further signify the impact of UDL on the daily life practices of the individuals. This would bring a stronger proof of the said phenomenon.

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LIST OF ABBREVIATIONS

UDL	Universal Design for Learning
ICA	International Compliance Association
USA	United States of America
PBL	Project-Based Learning
CL	Cooperative Learning
PICO	Population Intervention Comparison and Outcome
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
UNESCO	United Nations Educational Scientific and Cultural Organization
COVID-19	Coronavirus Disease of 2019
CORE	Central Operation of Resources for Educators
AS	Accessibility Services
TCOM	Teacher, Collaboration, Organization, and Motivation
AR	Augmented Reality
GIPS	The Global Investment Performance Standards

APPENDIX A

Questionnaire Set 1

Q1. Do you believe there is an impact of teaching methodology on student's personality building? How?

Q2. How do you describe UDL?

Q3. How would you describe the connection between UDL and daily life practices?

Q4. How does UDL help in building co-operation among learners?

Q5. Providing multiple means of engagement to the learners to gauge their attention and keep them motivated throughout the learning process is the utmost effort of UDL. Does keeping students engaged in a topic through collaborative activities boost their co-operative skills?

Q6. While working in groups for a project or any task, students learn to mitigate their differences and crossing all the discriminations, they learn to produce the final product as a team-work product. Does it impact their mutual co-operation?

Q7. How does practicing UDL for beginning of academic career till its end impact an individual's concern for community?

APPENDIX B

Questionnaire Set 2

Description

Universal Design for Learning (UDL) provides a theoretical framework for the concept of learning that addresses the accessibility of learning content and welcomes student diversity. Accessibility is considered here in terms of minimizing barriers, an idea that is central to many approaches to implementing inclusive education with the aim of ensuring that all learners participate in learning. The participation of all students in education is a pressing social and political issue. The growing diversity of students should be welcomed and served as a resource. In this context, inclusion is defined as a term denoting an appreciative and welcoming approach to diversity. All people, regardless of background, should have access to and be able to participate in education. This will also allow realizing the right to education. Cooperation and collaboration between both the teams can yield more efficiency in terms of teaching UDL and maximizing learning output of students. When teaching teams will collaborate, their impact will automatically shift towards learners as they follow teachers as their role models.

Q1-7 How can the idea of UDL be connected with seven co-operatives given below?

1. Voluntary & open membership
2. Democratic member control
3. Members' economic participation
4. Autonomy & independence
5. Education, training and information
6. Cooperation among cooperatives
7. Concern for community

APPENDIX C

Dear Participant,

We ask for your support in carrying out an investigation conducted by Saira Iftikhar, a student of MS-ITL-2021 from NUST, Atif Hanif Saqi, a manager from corporate sector, and Muhammad Muneeb, a civil engineer. This project is supervised by Ms Sara Sheikh, an experienced instructor at NUST. The research, titled "Impact of UDL on Practising Seven Cooperatives of ICA: A Big Picture" aims to understand what is the connection of UDL and practical life of the individuals who are taught through UDL tenets throughout their academic career.

You have been contacted as an experienced professional. If you agree to participate in this interview, you will be asked to answer a number of questions on the above topic, which will take approximately 30-60 minutes. The information obtained will only be used for the preparation of a research paper. In order to properly record the information, your permission to record the conversation is requested. The recording and notes of the interviews will be stored only by the researchers on their personal computer for a period of three years, after the research has been published, and only they will have access to it. At the end of this period, the information will be deleted.

Your participation in the research is completely voluntary. You can interrupt it at any time, without causing any damage. In addition, if you have any questions about the investigation, you can make them when you deem it appropriate, in order to clarify them in a timely manner.

At the end of the investigation, if you provide your email, we will send you an executive report with the results of the thesis to your email.

If you have any questions about the research, you can contact the following email: siftkhr.msitl21.seecs.edu.pk or the number 0331-5786305. In addition, if you have any questions about ethical aspects, you can contact the Research Ethics Committee of NUST.

I, _____, give my consent to participate in the study and give permission for my information to be used in it. Likewise, I agree that my identity be treated in the manner (mark one of the following options):

Declared, that is, that the work will expressly refer to my name.

Confidential, that is, in the work no express reference to my name will be made and the research will use an identification code or pseudonym.

Finally, I understand that I will receive a copy of this informed consent protocol.

Full name of the participant: _____ Signature: _____

Date: _____   Participant Email: _____

Name of the Investigator in charge: _____ Signature: _____

Date: _____