Evaluation of Online Discussion For Web-Based Professional Teacher's Learning Society

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Abstract : Educators' online dialog content information shed light on their intelligent reasoning. With the developing size of content information, the conventional method for manual coding, in any case, has been tested. To process the substantial scale unstructured content information, it is important to incorporate the inductive substance investigation strategy and instructive information mining strategies. An inductive substance investigation on tests taken from 17624 posts was actualized and the classes of educators' intelligent reasoning were gotten. In light of the consequences of inductive substance investigation, we actualized a solitary name content arrangement calculation to group the example information. At that point we connected the prepared order demonstrate on a vast scale and unexplored online talk content informational index and two sorts of perceptions of the outcomes were given. By utilizing the classifications picked up from inductive substance examination to make a radar outline's, appearance level was spoken to. Also, an aggregate contiguousness network was made to describe the advancement of instructors' intelligent reasoning. This examination could mostly clarify how instructors reflected in online expert learning conditions and brought attention to instructive strategy producers, educator preparing administrators, and training analysts.

IndexTerms- Computers And Education, Text Analysis, Collaborative Learning.

I. INTRODUCTION

Lately, the Ministry of Education of China has issued a progression of records to advance the usage of the in-benefit K12 educators' online expert improvement program [1]. The online expert advancement program gives numerous reflection chances to educators, including perusing materials, video scene, workshops, and online cooperation's with partners and tutors. Instructors' appearance can be extended through the correspondence with correspondingly intrigued associates, and after that they may challenge their past presumptions, or make imperative inquiries they have never considered be-fore [2] [3]. Henceforth, instructors' online exchange information gives a lot of certain learning for instructive re-searchers and experts to comprehend educators' intelligent reasoning. The comprehension can help instructor preparing chiefs make adjust intercession arrangements, enhance the nature of educator preparing, and along these lines upgrade instructors' instructing capacities. The huge scale online exchange information gives profitable data to comprehend instructors' appearance, yet additionally raises methodological issues, including information gathering, coding and perception. In excess of 2 million in-benefit educators in China partake in the expert improvement program each year and every instructor invest almost a year energy learning in the Online Professional Development Platform (OPDP). Confronting the sheer information volumes, the decent variety of instructors' dialect articulation, and the many-sided quality of intelligent reasoning, the conventional method for manual coding, however, can't manage this quandary. Instructive information mining and learning examination give a conceivable method to tackle this issue, yet unadulterated machine learning strategies as a rule can't uncover top to bottom implications in online discourse information [4][5]. Instructive analysts regularly utilize an assortment of techniques, for example, classroom perception, content examination, studies and meetings to gather information and investigate instructors' intelligent reasoning [6] [7]. These techniques can uncover top to bottom implications inside the unstructured information, however are tedious and can't be executed in an expansive scale. The conclusions from these investigations might be liable to the subjective impression of instructive analysts. In addition, the outcomes got from these strategies are linger ging behind and can't enable instructor coaches to make convenient mediation arrangements. Then again, the information driven methodologies, for example, instructive information mining and learning examination can dissect mass of relative information and picture comes about. These methodologies, be that as it may, are fundamentally utilized for the investigation of organized information, including learning conduct information, execution information and authoritative information recorded in course administration frameworks (CMS) or web based learning conditions (OLE, for example, Moodle. Inductive substance examination is a typical technique for physically breaking down content substance [8]. Keeping in mind the end goal to mine and examine instructors' online talk information on OPDP for understanding their intelligent reasoning, it is expected to incorporate the inductive substance investigation and instructive information mining methods.

The motivations behind this exploration are 1) to investigate the classes of instructors' intelligent reasoning and understand the programmed characterization of the online discourse information by coordinating the inductive substance examination and instructive information mining procedures; and 2) to break down educators' intelligent reasoning in the online educator proficient improvement program, including instructors' appearance levels and advancement. Educators' online talk information has been gathered and broke down for understanding their intelligent reasoning essentially on the grounds that:

- The associate instructing model has for quite some time been utilized in professional advancement projects to upgrade instructors' showing practices and understudies' learning results [9]. In equal associate training, instructors share the instructing part, talk about with each other, and evoke the reflection [10]. Instructors' online exchange information epitomizes their intelligent reasoning.
- In light of the comprehension of instructors' intelligent reasoning, educator preparing administrators and instructive researchers can outline more suitable web based learning exercises and give appropriate administrations and intercessions to help educators' online reflection.
- Content investigation is usually used to break down transcript of online discourse for instructive purposes [11]. In this investigation, the coding structures, which concentrated on the primary substance and level of educators' appearance, had been acquired from inductive substance examination. What's more, we had built up a Data gatherer, the Hawk, to gather posts on OPDP. In this way, we broke down instructors' posts for understanding their intelligent reasoning.

The real commitments of this paper are: (1) it portrays a programmed coding strategy by incorporating the inductive substance examination and content arrangement procedures. We air conditioning quire the intelligent reasoning classes by leading an inductive substance investigation and construct our content order calculation in light of the classifications, so we enlarge the manual technique for coding. We apply the prepared order model to a vast scale and unexplored online dialog informational index, so we can have a thorough comprehension of educators' appearance. (2) This paper likewise gives two kinds of perceptions of the content order comes about: the representation of instructors' appearance level and the representation of educators' appearance development. By utilizing the classes picked up from inductive substance investigation to make a radar outline, outwardly speak to educators' appearance level after we get the consequences of content arrangement. By characterizing the components in a coding plan as the hub and the co events of hubs inside talk information as the associations, an aggregate nearness network is made to portray the advancement of educators' intelligent reasoning. The aftereffects of this paper could reveal some insight into how educators reflect in online expert learning conditions and bring attention to instructive strategy creators, instructor preparing supervisors and training scientists.

II. RELATED WORK

In this area, instructors' online expert improvement and reflection are presented, trailed by a survey of learning examination and perception. Instructive information mining is then talked about.

A. Teachers' online profession development and reflection

Educators require proceeding with proficient advancement to meet social and information requests and continuous help to roll out improvements to their training in the educational programs, direction, and the appraisal of understudy learning [12] [13] [14]. The expert advancement program gives the best chances to instructors to take care of showing issues, create reflection, and enhance their execution [15]. With the quick advancement of web innovation, an extraordinary number of Web 2.0 devices (e.g., WeChat, Blog, Twitter), web based learning stages (e.g., Moodle, Blackboard), and course administration frameworks (CMS) turn into an elective guideline medium for the expert improvement program. The method for online calling advancement gives comfort and adaptability to instructors to partake in learning exercises, interface and speak with associates and guides in ways that would have beforehand been troublesome. Working website based showing portfolios as an internet learning group apparatus for educators to talk about, arrange and think about their own particular comprehension of showing background, analysts have demonstrated a positive effect of blog-construct showing portfolios with respect to instructors' expert advancement [16]. The web based learning group enables educators to build up their expert character, lessen confinement, and upgrade their intelligent practice [17] [18]. Intelligent practice has for quite some time been considered as a key action in quality instructor' proficient improvement programs [3].

Intelligent reasoning was first recognized from different kinds of reasoning by crafted by Dewey who portrayed reflection thinking as "dynamic, relentless, and watchful thought of any conviction or gathered type of information in the light of the grounds that help it and the further conclusions to which it tends" [19]. Following Dewey's way, Valli portrayed intelligent educators as "they can think back on occasions; make judgments about them; and modify their showing practices in light of specialty, investigate, and moral learning" [20]. Subsequently, instructor's intelligent reasoning is a perplexing procedure of reasoning about apparent issues and delivering a sound reaction in later circumstance [21]. The concentration and level are two vital parts of educators' intelligent reasoning [22]. The focal point of reflection alludes to instructors' principle concerns. For instance, the focal point of specialized reflection incorporates general guideline and administration practices inside a specific institutional setting [3], and the focal point of identity reflection concerns instructors' self-improvement and associations with understudies. The of reflection evaluates how educators create their reflective thinking process. For instance, portrayal includes depicting a classroom concern, an intriguing hypothesis, or an inclination, and critique involves precisely considering a problem that has been set in light of different viewpoints [23]. Notwithstanding this a number of specialists have high-lit the significance of intelligent reasoning in teachers' professional improvement [6] [16] [24] and teachers reflective reasoning can flourish when they gain criticism from associates and guides [25].

B. Learning analytics and visualization

A usually utilized meaning of learning investigation is that given by the Society to Learning Analytics Research (SoLAR): "the estimation, accumulation, examination and re-porting of information about students and their specific circumstances, for the reasons for comprehension and streamlining learning and the conditions in which it happens" [26][27]. Inclining investigation

underscores use of understood models and ways to deal with distinguish key factors that advise understudy maintenance and scholarly execution [27]. A few learning examination frameworks have been created to recognize understudy chance levels and bolster quick course changes, including the Course Signals System at Purdue University and the Moodog System being utilized at the University of California [28]. A learning explanatory framework named Tracer was created to gauge and picture understudies' behavioral engagement by recording the middle of the road phases of archive improvement and the specialists found that the outcomes consequently assessed by the Tracer framework were associated with the level announced by understudies and the perceptions were useful for pondering the learning procedure [29]. In the current years, the social constructivist hypothesis and the collective learning hypothesis which pay exceptional accentuation on cooperation, community oriented learning, and social development of information content have been famously connected into the outline of learning examination approaches. Talk driven learning investigation (DCLA) center around students' talk to distinguish examples of significant learning and information development [30]. DCLA can re-veal the nearness or nonappearance of the planned information development forms which can fill in as great markers for following and evaluating whether the unfurling learning forms are profitable or not from the point of view of co-development of learning [31] [32].

The development of social constructivist ways to deal with training additionally prompts the presence of uses to break down the talk of clients inside the setting of informal communities. Subsequent to characterizing the space particular epistemic edge, epistemic system examination (ENA) utilizes the components of the epistemic casing as the hubs and makes a contiguousness network to speak to the co-events of hubs in each line of visit information [33]. ENA can portray understudies' talk and imagine the structure of their epistemic casing. Under the direction of ENA, we characterized the hubs and the co-events of hubs inside exchange information as the associations, and made a total nearness framework to describe the advancement of instructors' intelligent reasoning. The visual show of broke down information is outlined for discovering and understanding complex ideas, connection ships, examples and patterns in expansive dynamic and heterogeneous datasets gathered from complex frameworks [34]. An assortment of instruments and procedures to make perceptions (diagrams, charts, informal community, and guide based) of substantial datasets are rising and analysts can without much of a stretch investigate and translate information. Three distinct perceptions, including point-based representation, line-based perception, and tallness based representation, have been displayed to enable understudies to check their engagement, reflect and change their practices in exercises [29]. In an insightful mentoring framework, a student display have been figured to adjust learning exercises and consequences of performing investigation on student information can be pictured for giving student criticism about their learning execution and learning [29].

C. Educational data mining

Instructive information mining creates computational and mental strategies and systems for seeing how understudies learn by gathering and investigating understudy information, finding learning examples and patterns, and making new revelations about how understudy learn. Students' online discourse information has been gathered and investigated to create particular learning of execution, learning practices and encounters. A delegate set of characterization calculations has been utilized for foreseeing whether understudies will pass or come up short the course based on information about their online discourse gatherings use [35]. Dependable and pertinent intermediary factors that reflect hypothetical and observational proof and an expectation demonstrate were built, and comes about showed that the predication display was highly administer, and early location and auspicious intercessions were conceivable [36]. Comparative investigations have been led for understanding students' mind boggling critical thinking [37], information building [38]. Instructive information mining scientists utilize an assortment of strategies and applies systems from insights, machine learning and information mining, including expectation, grouping, bunching, relationship mining, refining for human judgment, and revelation with models. Among these strategies and applies methods, content characterization is an exceptionally develop investigate field and most applicable to this examination. Famous order calculations have been utilized as a part of instructive information mining and machine learning area, including Logistic Regression, Naïve Bayes, Support Vector Machine (SVM), Decision Tree, Boosting, and so on. In light of the quantity of classes that every datum point falls into, there are single-name and multi-mark characterization. Every datum point can only fall into one class in single-name grouping and all classes in single-mark characterization are fundamentally unrelated.

The single mark order framework incorporates paired characterization and multi-class grouping approaches. There are just two classes in twofold order, while in excess of two classes in multi-class arrangement. In multi-name order, in any case, every datum point can fall into a few classes meanwhile. In this investigation, a solitary name characterization demonstrate was manufactured in light of inductive substance examination and we permitted each online dialog information point to fall into one class in arrangement show was then connected on an extensive scale and unexplored online exchange content informational collection for understanding instructors' intelligent reasoning. Information dissected in learning examination and instructive information mining approaches are generally organized information including learning conduct information, execution information and administrator istrative information recorded in course administration frameworks (CMS) or web based learning situations (OLE, for example, Moodle. Keeping in mind the end goal to process the vast scale unstructured content information, it was expected to incorporate the inductive substance investigation and instructive information mining strategies. The motivation behind this exploration was to expand the information extent of learning investigation, to accomplish programmed coding, and to under-stand educators' intelligent reasoning through the method for representation.

II. METHODOLOGY

A. Research design

With a specific end goal to comprehend instructors' intelligent reasoning from the online exchange information, this investigation experienced six principle stages

Stage 1: We built up an information gathering apparatus to gather educator created online talk information. We acquired 21388 posts by utilizing the information gathering apparatus over a time of a half year.

Stage 2: An arbitrary example (2000 posts) were drawn from the online exchange informational collection and utilized for inductive substance investigation.

Stage 3: Three specialists who had involvement with subjective research and commonality with previous coding plans worked together on the inductive substance investigation process. Three specialists directed an inductive substance examination on the arbitrary example of online dialog informational collection. After stage 3, we acquired the classifications utilized for content order.

Stage 4: A solitary mark Naïve Bayes Classification calculation had been executed to arrange the named information. At that point, we assessed the execution of the single-mark Na-ïve Bayes order calculation by contrasting it and other regularly utilized content grouping calculation.

Stage 5: We actualized an expansive scale content order in view of the prepared grouping model. All the online exchange information has been naturally coded.

Stage 6 : We outwardly spoke to educators' appearance levels after we got the consequences of substantial scale content grouping. Also, we made a total nearness network to portray the advancement of instructors' intelligent reasoning. At that point, the aftereffects of content grouping and representation were sent back to the information stockpiling.

B. Participants

An aggregate of 6650 in-benefit K12 educators in China had taken an interest in an online expert advancement program that was 10 months in term from September first, 2014 to June 30th, 2015. The online expert improvement master gram was isolated into three ceaseless parts: 1) watching ICT-coordinated courses exclusively (for 4 months), 2) two rounds of online community oriented learning (for 4 months), and 3) presenting an ICT lesson design or a video-recorded classroom showing process (for 2 months). Each instructor was arbitrarily appointed to an online examination gathering. These instructors were mostly made out of female members (4120, 62%) and had a normal of 17.48 years of educating background. Every one of the educators had taken an interest in the online expert improvement program previously, so they could finish the learning errand easily. Moreover, every member had no less than 5 years of involvement with internet learning and could get to the OPDP by com-putersor cell phones.

C. Three-stage online collaborative learning approach

The approach of online community learning gives Internet based proficient advancement openings, including singular reflection, sharing asset, workshops, online associations with partners, and guides [12]. Air conditioning cording to the speculations of sociocultural constructivism and information development, dialogic cooperations and correspondence among educators are significant for their expert improvement [16]. Numerous synchronous specialized instruments, for example, QQ, We Chat, Videoconferencing, and offbeat specialized apparatuses, for example, Blog, Microblog, Bulletin Board System, have been utilized as a part of instructors' online expert advancement exercises.
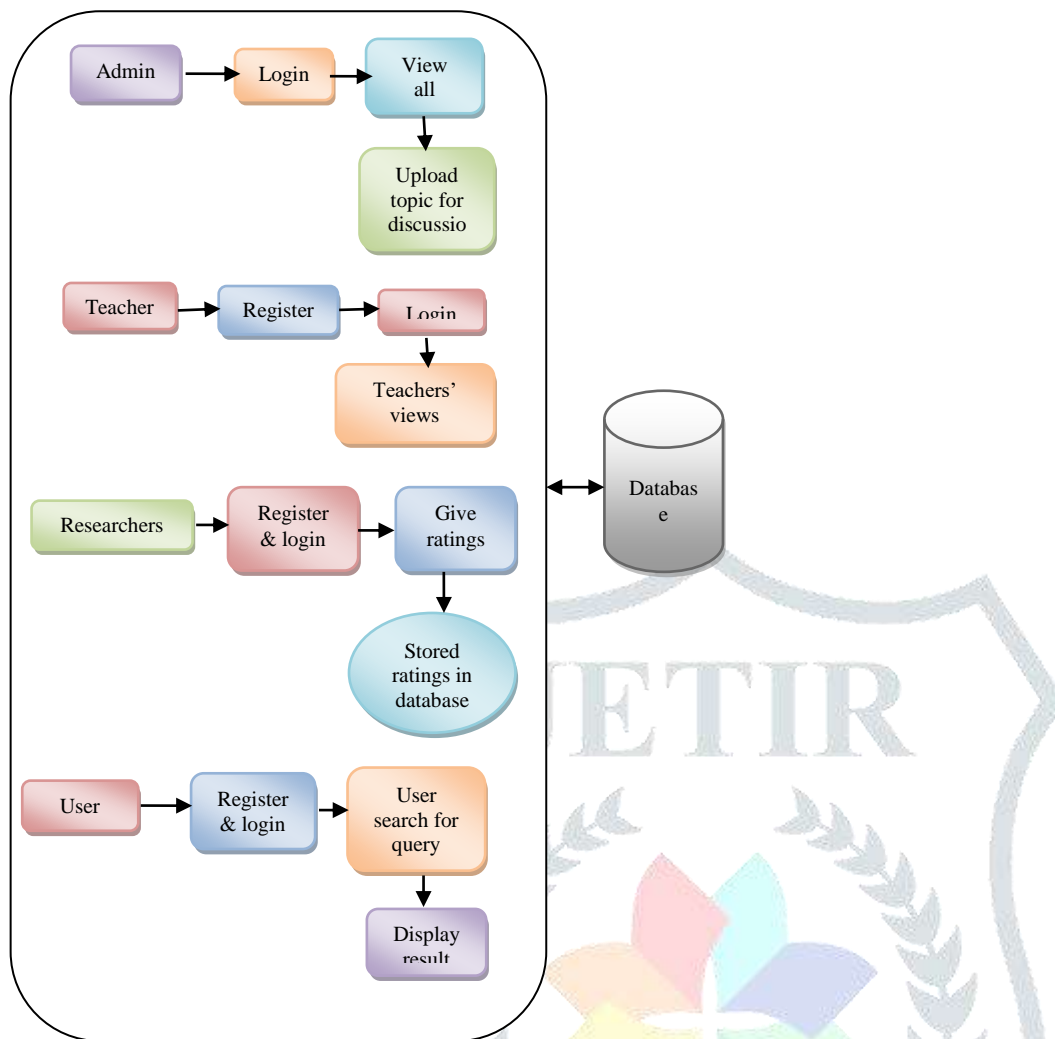
Fig. 1. The System Architecture

In light of the confinement of synchronous correspondence, for example, an absence of reflection time and troubles in directing bigger scale discussions [39], a nonconcurring discourse instrument entitled OPDP was created and used to sup-port instructors' online synergistic learning exercises (see Fig. 2). Instructors could partake in online exchange, distribute data, transfer and download documents in OPDP. All the online dialog information was recorded consequently in the back-end database of OPDP. We composed a three-arrange online community oriented learning movement on the OPDP (see Fig. 3). Toward the start of the action, a main educator composed an action design, chose an exchange subject and posted them on the OPDP. After the arrangement work was finished, the instructors started to reflect and talk about the subject as per the action design. The entire online community oriented learning action could be isolated into three phases, as portrayed beneath: In the main stage, each educator mirrored the dialog subject separately. After the central educator posted the action design and exchange theme onto the OPDP, each instructor downloaded and read the arrangement and subject. At that point, each instructor mirrored the exchange subject as indicated by his/her educating background. In the second stage, all educates talked about the subject on the whole. Each educator communicated their own particular perspectives, and ex-changed perspectives with others. This is a procedure of externalization. Instructors communicated their thoughts or considerations about a particular point by means of posts. In the last stage, each instructor presented an archive, which recorded his/her learning knowledge in the online synergistic learning movement. This is a procedure of interior ization. Instructors recorded the information gained from correspondence with guides and associates. Every three-arrange online community learning movement as a rule went on for one month. After three phases were completed, the central instructor and the individual educators aggregate marized the outcomes. In the three-arrange online synergistic learning action, instructors' appearance believing was communicated in two fundamental ways: the online discourse posts and the reflection docu-ments. In this investigation, we gathered instructors' online disk sion presents on dissect their intelligent reasoning.

D. Data collection and preprocess

In the wake of getting authorization for information use from the instructor preparing chief, we obtained a back-end database air conditioning check of the OPDP. We at that point built up an information accumulation apparatus, the Hawk, which helped us

get online talk datathrouth the record. We gathered educators' online talk posts for around a half year from February first, 2015 to July 27th, 2015 by utilizing the Hawk. Altogether, we acquired 21388 posts in 88 online expert learning groups. We at that point expelled the copies caused by reposting, and there were 17624 special posts in the informational collection. Educators' online talk information contained some exceptional images to express certain importance. For instance, emojis were utilized to speak to an appearance in themselves or add subtle elements to a reflection. Be that as it may, just knowing the assessment of instructors' a post does not give further and better comprehension of educators' appearance. In this examination, subjective investigation was utilized to decide the level and advancement of instructors' intelligent reasoning that online dialog content information show. Conclusion analysis is, along these lines, not applicable to this investigation. Likewise, some non-Chinese sym-bols, stop-words and accentuation additionally convey commotion to the data.We preprocessed the online dialog content information be-fore preparing the classifier.
1. We expelled all the exceptional images, non-Chinese images, accentuation, and numbers.
2. We utilized the data recovery toolbox, the IC-TCLAS framework, to do word division and expel all the basic stop-words [40].

In this investigation, three steps were taken to ensure the gathered information: (1) all member names were supplanted with pen names; we just broke down the online exchange content information; and(3) we just present the consequences of information butt-centrists is and did not discharge the first information.

E. Automatic coding scheme

Various coding plans for breaking down educators' re-flective reasoning were development [41].Van Manen[42]distinguished three levels of reflection. At the principal level of reflection, teachers' dominant concern was with specialized soundness (applying information keeping in mind the end goal to reach prede-termined instructive destinations). At the second level, teachers' reflection went past technical rationality into examining, addressing and clearing up the end objectives and the suspicions behind instructing exercises. At the most elevated amount of reflection, the basic reflection, teachersincorporated moral and moral inquiries into their line of reasoning. Valli[20]summarizedfive distinctive sorts of re-flectionas takes after: specialized reflection, appearance in and on activity, deliberative reflection, personalistic reflection, and basic reflection. Among these kinds of reflection, tech-nical reflection was concerned with the general guideline and administration practices part of classroom instructing, deliberative reflection was concerned with the entire scope of educating (understudies, educational programs, rules and organi-zation of the classroom, and so on.), personalistic reflection was concerned with teachers' self-improvement and connection ships with understudies, and basic reflection was concerned with the social, moral, and political measurements of school-ing.
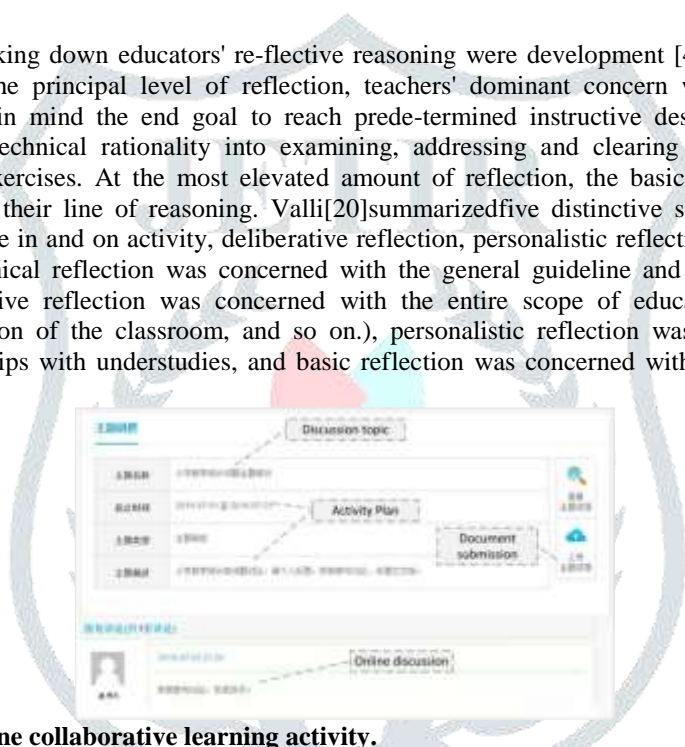
Fig. 2. The interface of the online collaborative learning activity.
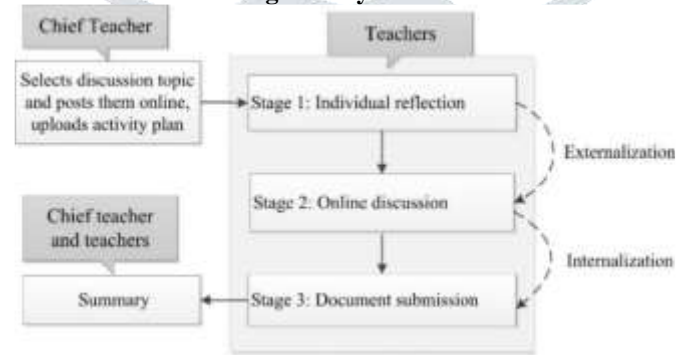
Fig. 3. The process of the three-stage online collaborative learning activity.

A typology of reflection which was produced to connect hypothesis and practice with an end goal to educate intelligent practice to preservice teachers was proposed and the ty-pology profiles three measurements of educators' intelligent idea: clear, relative, and critical[23]. The di-mensions in these coding plan provided important ref-erences to this examination, yet the motivation behind why another coding plan to comprehend Chinese educators' intelligent reasoning amid the procedures of online talk was required was that : 1) a few measurements, for example, political measurements of tutoring, once in a while appeared in Chinese instructors' online dis-cussion,2) specialized reflection, reflection-on-activity, and deliberative reflection regularly showed up all the while in one online exchange post, and3)most of the prior coding schemes for evaluating reflection levels were frequently chose in view of subjects that worry educators at specific circumstances. In this examination, inductive substance investigation

serves both as an observation apparatus for distinguishing factors in online discourse posts, and as an explanatory device for doling out variables to classifications in coding.

The development of the coding scheme was to depict the concentration and level of teachers' reflection which could help usassess the nature of teachers' reflective reasoning and investigate how the procedure of intelligent reasoning create in teachers[22]. Three specialists who had involvement with qualitative research and commonality with pre-existing coding plans teamed up on the inductive substance examination process. To start with, master A read an arbitrary example of 2000 posts from the 17624 one of a kind posts in the informational collection and listed the sorts of intelligent reasoning. At that point, master A composed de-followed translation and give cases to each cate-shocking and sent the codebook and the 2000-presents test on expert B and expert C for audit. At long last, three specialists dis-cussed and reduced the coding plan to a niggardly arrangement of classifications. The last coding plan is appeared in Table 1. The focal point of reflection could be specialized and individual is tic. Specialized reflection was concerned with instructional, administrative, or contextual parts of classroom showing [20] [22] [43]. Personalistic reflection managed showing beliefs (the suppositions or cases of in-benefit educators about perfect method for education) or proficient advancement aspects of instructors [19][20]. The level of reflection could be spoke to by depiction, investigation, and evaluate [22] [23]. Portrayal gave unmistakable data of an activity. Investigation gave method of reasoning and rationale of an activity. Critique gave clarifications and assessment of an activity.
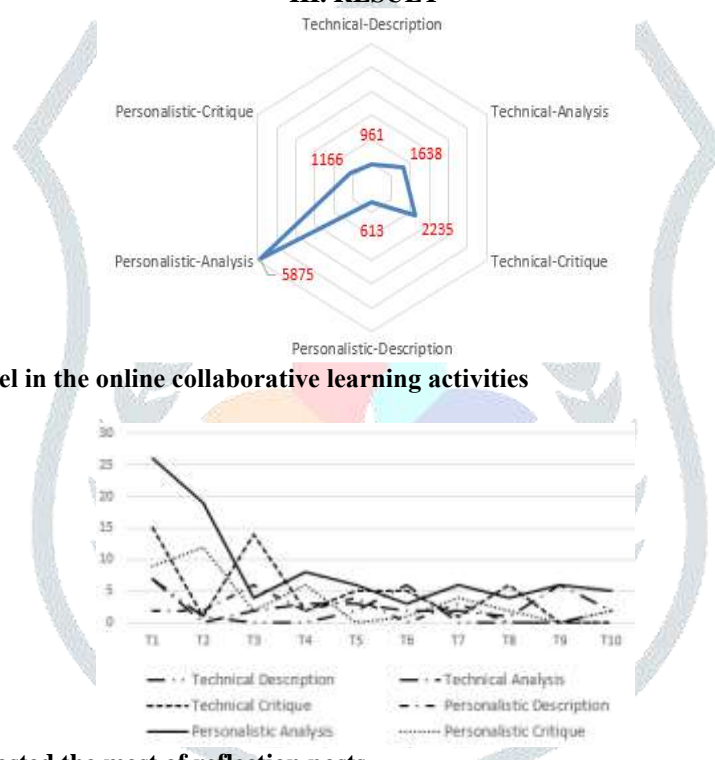
III. RESULT

Fig4. Teachers' reflection level in the online collaborative learning activities

Fig.5. Top 10 teachers who posted the most of reflection posts
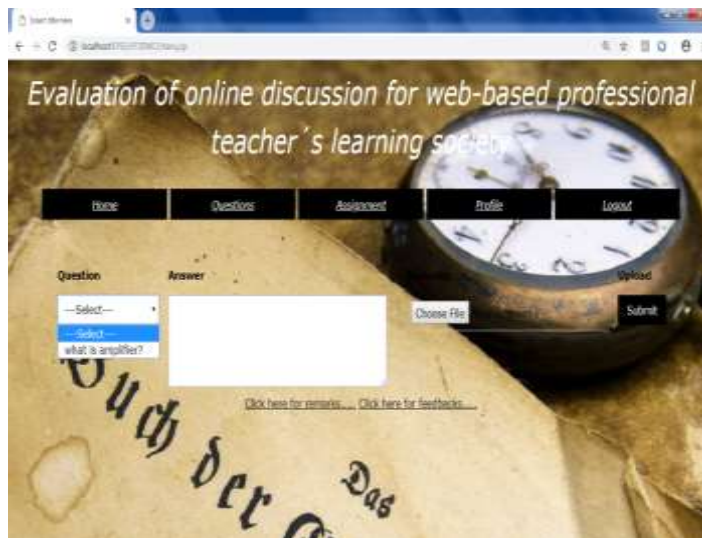

Fig.6. Home Page

Fig.7. Question for teachers thinking

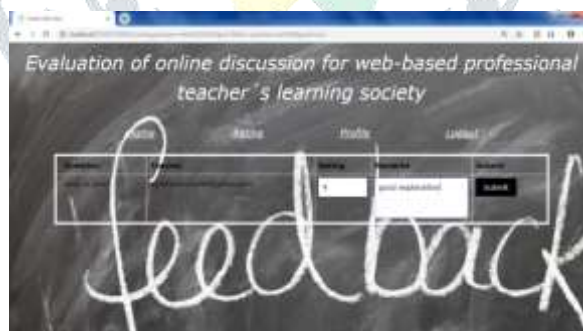**Fig.8. Teacher answer for the question**

Fig.9. Researcher rating for thinking of teacher

IV. CONCLUSION

In this investigation, we encoded and envisioned the substantial scale unstructured content information in instructors' online collective learning exercises keeping in mind the end goal to understanding educators' re-flection levels and advancement, incorporating both the qualita-tive substance examination strategy and instructive information mining strategies. The subjective substance investigation methode-vealed that instructors' intelligent reasoning included Tech-nical-Description, Technical - Analysis, Technical-Critique, Personalistic-Description, Personalistic-Analysis, and Per-sonalistic-Critique. In light of the consequences of inductive con-tentanalysis, we executed a solitary mark content classification calculation to order the example information. At that point we connected the prepared grouping model on a substantial scale and unexplored online discourse content informational index. After the online discussion content information being arranged, two sorts of visualizations of the outcomes were given. By utilizing the classifications picked up from inductive substance examination to make a radar outline's, appearance level had been spoken to. In advertisement dition, by characterizing the factors of the coding plan as the hubs and the co-events of hubs inside a plate sion post as the associations, a combined nearness mama trix was made to describe the development of instructors' intelligent reasoning. This investigation gave a technique to breaking down extensive scale unstructured content information and could defeat the restrictions of manual substance examination and unadulterated machine

learning strategy. This examination could likewise help instructive approach creators and instructor preparing supervisors comprehend the sta-tus of educator reflection and settle on choices on legitimate in-terventions in online expert advancement exercises.

V. REFERENCES

[1] Liu, Q. T., Zhang, S., & Wang, Q. Y. (2015). Surveying Chinese in-service K12 teachers' technology, Pedagogy, and Content Knowledge. Journal of Educational Computing Research, 53(1), 55-74.

[2] Hou, H. (2015). What makes an online community of practice work? A situated study of Chinese student teachers' perceptions of online professional learning. Teaching and Teacher Education, 46, 6-16.

[3] Krutka, D. G., Bergman, D. J., Flores, R., Mason, K., & Jack, A. R. (2014). Microblogging about teaching: Nurturing participatory cultures through collaborative online reflection with pre-service teachers. Teaching and Teacher Education, 40, 83-93.

[4] Chen, X., Vorvoreanu, M., & Madhavan, K. (2014). Mining social media data for understanding students' learning experiences. IEEE Transactions on Learning Technologies, 7(3), 246-259.

[5] Rost, M., Barkhuus, L., Cramer, H., & Brown, B. (2013). Repre-sentation and communication: challenges in interpreting large social media datasets. Conference on Computer Supported Co-operative Work, 357-362.

[6] Cherrington, S., & Loveridge, J. (2014). Using video to promote early childhood teachers' thinking and reflection. Teaching and Teacher Education, 41, 42-51.

[7] Killeavy, M., & Moloney, A. (2010). Reflection in a social space: Can blogging support reflective practice for beginning teachers? Teaching and Teacher Education, 26, 1070-1076.

[8] Britton, L. R., & Anderson, K. A. (2010). Peer coaching and pre-service teachers: Examining an underutilized concept. Teaching and Teacher Education, 26(2), 306-314.

[9] Zhang, S., Liu, Q. T., & Wang, Q. Y. (2016). A study of peer coach-ing in teachers' online professional learning communities. Uni-versal Access in the Information Society, 1-11.

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