SYSTEM FOR DEVELOPING LITERACY SKILLS USING LOOSELY COUPLED TOOLS IN A SELF-DIRECTED LEARNING PROCESS WITHIN A COLLABORATIVE SOCIAL NETWORK

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ABSTRACT

A system of computers, storage, and networks coordinates that monitors, records, and manages actions among participants with interdependent roles, in a dynamic, process-based learning system is provided. Participants in a collaborative social network acquire information and use a variety of rich interactive applications that guide them through an iterative learning process. Once validated, participants are matched according to selectable, configurable criteria. Once matched, a participant selects a subject or content, is able to integrate and extend knowledge through access to related material or people, uses tools to collaborate with other validated members of the network, and shares written correspondence with them. Using input from correspondence and content, another participant then submits correspondence back through the moderator for release, modification, or denial and return to the originator.
FROM FIG. 3A

ALL In2BOOKS PROGRAM/CURRICULUM LOGIC CONTAINED IN THIS LAYER FOR MAINTAINABILITY AND REUSE ACROSS PRODUCT LINES

In2BOOKS CURRICULUM LOGIC (BUSINESS LOGIC)

- ENROLLMENT
- SELECT BOOK
- SET MESSAGES
- ONE TO ONE MODE
- AFTER-SCHOOL MODE
- UPDATE RESOURCE
- SET LEVEL
- SET QUEUE
- PP MATCH
- SET ASSIGNMENT
- SELECT UNIT
- CLASSROOM MODE
- SET ASSESS
- NEXT LESSON
- MONITORING
- CYCLE UPDATE

DATA MANAGEMENT TIER

- USER ACCOUNTS
- SYSTEM METADATA
- OPERATIONS DATA
- CLASSIFICATION STRUCTURE
- LEARNING MANAGEMENT SYSTEM
- FULL TEXT
- FILE SYSTEM
- ARCHIVE
- VIDEO AUDIO

OFF-THE-SHELF TECHNOLOGY OPTIMIZED FOR DATA TYPE AND USE OPEN STANDARDS COMPLIANT INTEGRATED THROUGH BUSINESS LOGIC ACCESS VIA API's MAINTAINED VIA BACK OFFICE TOOLS

FIG. 3B
GOOD JOB ON FINISHING YOUR BOOK!

NOW YOU PROBABLY HAVE LOTS OF IDEAS THAT YOU WANT TO SHARE WITH YOUR UNCLE BILL, ESPECIALLY AFTER READING HIS LETTER TO YOU.

YOU CAN CHOOSE TO WRITE YOUR LETTER TWO DIFFERENT WAYS:
1. GUIDED: YOU CAN BE GUIDED THROUGH THE STEPS GOOD WRITERS USE TO WRITE LETTERS
2. ON MY OWN - YOU CAN WRITE YOUR LETTER ON YOUR OWN

READY TO CHOOSE?
example edits

open, save, get feedback

on my own

edit my draft

check the suggestions and make the suggested changes.
REGISTRATION FLOW, WITH SECONDARY REGISTRATION AND BOOK-BUYING CONFIGURATION. NOV. 7, 2006

WHAT DO YOU WANT TO DO?

BOX PURCHASE

WEB SITE

PROMOTION

BOX PURCHASE

SIGN UP FOR A SUBSCRIPTION

PAY FOR BOOKS FOR SOMEONE ELSE

USE A PROMOTION CODE TO JOIN

RESPOND TO INVITATION TO JOIN

EMAIL INVITATION TO PARENT

EMAIL INVITATION TO PEN PAL

ENTER PROMO CODE

ENTER RELATIONSHIP CODE, IF NEEDED

SELECT USER NAME AND PASSWORD

SELECT USER NAME AND PASSWORD

ENTER PERSONAL INFORMATION

ENTER PERSONAL INFORMATION

REGISTRATION Captured

REGISTRATION Captured

ENTER PAYMENT INFORMATION

ENTER PERSONAL INFORMATION

REGISTRATION Captured

REGISTRATION Captured

GO TO BOOK-BUYING CONFIGURATION AT BOTTOM OF THIS FLOW

GO TO BOOK-BUYING CONFIGURATION AT BOTTOM OF THIS FLOW

PAYMENT CONFIRMATION

REGISTRATION Captured

REGISTRATION Captured

SELECT USER NAME AND PASSWORD

SELECT USER NAME AND PASSWORD

ENTER PERSONAL INFORMATION

ENTER PERSONAL INFORMATION

REGISTRATION Captured

REGISTRATION Captured

GO TO BOOK-BUYING CONFIGURATION AT BOTTOM OF THIS FLOW

GO TO BOOK-BUYING CONFIGURATION AT BOTTOM OF THIS FLOW

REGISTRATION Captured

REGISTRATION Captured

RESPOND TO INVITATION TO JOIN

RESPOND TO INVITATION TO JOIN

ENTER RELATIONSHIP CODE, IF NEEDED

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SELECT USER NAME AND PASSWORD

SELECT USER NAME AND PASSWORD

ENTER PERSONAL INFORMATION

ENTER PERSONAL INFORMATION

REGISTRATION Captured

REGISTRATION Captured

GO TO BOOK-BUYING CONFIGURATION AT BOTTOM OF THIS FLOW

GO TO BOOK-BUYING CONFIGURATION AT BOTTOM OF THIS FLOW

REGISTRATION Captured

REGISTRATION Captured

IT IS NOT CLEAR YET HOW TO HANDLE REGISTRATION'S BY PEN PALS AND STUDENTS. OUTSIDE OF AN EXISTING RELATIONSHIP.

TO FIG. 17B

FIG. 17A
**FIG. 18B**

- **Is PAYOR BUYING FOR PEN PAL?**
  - **No**
    - **Is PEN PAL AUTO-BUYING?**
      - **No**
        - **Email to PEN PAL: Student has chosen (title) please purchase or otherwise get the book right away.**
        - **Email to PEN PAL: Does PEN PAL need this book?**
          - **Yes**
            - **Buy PEN PAL book.**
            - **Email to PEN PAL: Your book is on its way, PEN PAL tracking link here's something to get you started.**
          - **No**
            - **Buy PEN PAL book.**
            - **Shipping process.**
            - **Email to PEN PAL: Your book is on its way, PEN PAL tracking link here's something to get you started.**
      - **Yes**
        - **Email to PEN PAL: Please confirm reg info.**
        - **Email to PEN PAL: Buy PEN PAL book.**
        - **Shipping process.**
        - **Email to PEN PAL: Your book is on its way, PEN PAL tracking link here's something to get you started.**

- **From FIG. 18A**
  - **Yes**
    - **Email to CHILD: Your book is on its way, here's something to get you started.**
    - **Has PEN PAL confirmed info?**
      - **No**
        - **Email to PEN PAL: Please confirm reg info.**
        - **Email to PEN PAL: Buy PEN PAL book.**
        - **Shipping process.**
        - **Email to PEN PAL: Your book is on its way, PEN PAL tracking link here's something to get you started.**
      - **Yes**
        - **Email to PARENT: The book is on its way, child tracking link.**

**From FIG. 18A**

**Email to CHILD: Your book is on its way, here's something to get you started.**
SYSTEM FOR DEVELOPING LITERACY SKILLS USING LOOSELY COUPLED TOOLS IN A SELF-DIRECTED LEARNING PROCESS WITHIN A COLLABORATIVE SOCIAL NETWORK

CLAIM OF PRIORITY

[0001] The present application claims the benefit of U.S. provisional applications Nos. 60/857,560; 60/857,570; and 60/857,583, all filed on Nov. 8, 2006 by Gilburne et al., the entire disclosures of which are incorporated by reference herein in their entirety.

FIELD OF THE INVENTION

[0002] This invention generally relates to a system and method of a learning process, and specifically to problem-based learning systems involving methods of dynamic interaction between participants in a collaborative social network.

BACKGROUND OF THE INVENTION

[0003] This present invention delivers a dynamic, problem-based learning experiences using computers, storage, and networks to coordinate, record, and manage the interactions between participants and includes a collaborative social network where content, presentation, curriculum, and/or the like are tailored to the participants and their roles in the social network.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] A full and enabling disclosure of the present invention, including the best mode thereof directed to one of ordinary skill in the art, is set forth in the specification, which makes reference to the appended drawings, in which:

[0005] FIGS. 1 and 2 are flowcharts of a method of a system for developing literacy skills in accordance with an embodiment of the present invention;

[0006] FIGS. 3 and 4 are hierarchical representations of a learning system for developing literacy skills in accordance with an embodiment of the present invention;

[0007] FIGS. 5 through 16 are graphical representations of an exemplary interface of a system for developing literacy skills in accordance with an embodiment of the present invention;

[0008] FIG. 17 is a flowchart showing the steps of the registration flow for the program, including secondary registration and identity confirmation as well as a book buying configuration in accordance with an embodiment of the present invention; and

[0009] FIG. 18 is a flowchart showing the steps of the book selection work flow in accordance with an embodiment of the present invention.

[0010] Repeat use of reference characters in the present specification and drawings is intended to represent same or analogous features or elements of the invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0011] Reference will now be made in detail to presently preferred embodiments of the invention, one or more examples of which are illustrated in the accompanying drawings. Each example is provided by way of explanation of the invention, not limitation of the invention. In fact, it will be apparent to those skilled in the art that modifications and variations can be made in the present invention without departing from the scope or spirit thereof. For instance, features illustrated or described as part of one embodiment may be used on another embodiment to yield a still further embodiment. Thus, it is intended that the present invention covers such modifications and variations as come within the scope of the appended claims and their equivalents. Additional aspects and advantages of the invention will be set forth in part in the description which follows and, in part, will be obvious from the description, or may be learned by practice of the invention.

[0012] Learning often occurs in collaborative social networks and may depend on the network's content, presentation, and/or curriculum. The best learning may take place when the networks' characteristics are tailored to the participants in the network and when those items are tailored specifically to the participants' roles. The present invention includes a method of allowing the delivery of a dynamic, tailored, process-based learning experience that involves coordinating, recording, and managing each participant's current status or a change in the status within the learning environment. The current status of each participant includes a number of factors, such as the current assignment of the participant, and may be referred to as the participant's 'state,' while changes in the participant's state may be referred to as state transitions. While this method has applicability to many different learning situations, it will be described herein as an example based on improving literacy through an education network. The literacy program combines reading, subject matter content (such as social studies, science, folktales, etc.), and correspondence between students, on the one hand, and "pen pals" or mentors on the other. One embodiment of the present invention utilizes computers, data storage, and networks to achieve the goal of improved literacy.

[0013] Improvement in literacy, both in reading and also in writing, is an important educational objective. A system of computers, data storage, and networks may be used according to an embodiment of the present invention to support a literacy program that (a) utilizes books selected by students and provides professional development to teachers, (b) allows for implementation of a classroom, home, and/or after-school program, (c) provides for and manages safe correspondence between students and adult pen pals or mentors, and (d) allows a student's writing to be evaluated.

[0014] The methodology utilized by the literacy program is adaptive and dynamic, so that the system manages and records states and transitions that trigger specific actions and events tailored to each participant. The program also manages the transfer and delivery of electronic and physical materials between participants. The participants in the program may have a variety of interdependent roles, which may include, for example, student, teacher, pen pal, and parent.

[0015] The system enables parallel or non-parallel entry points into the literacy program for the various participants and processes those entry points in order to filter them according to validation and safety rules established for each user role. The validation and safety rules allow minors to participate in the learning program with approved, safe mentors who will generally be of adult or older student ages.

[0016] Once validated, the participants enter a database, whereupon they are matched with a pen pal or mentor according to selectable, configurable criteria based on segmentation of populations best suited to match each participant. FIG. I
shows the methodology of entering participants and the matching of students and mentors based on selectable criteria.

[0017] As shown in FIG. 1, a mentor or a group of mentors enter the program by applying to participate at step 10. After the application is approved and the mentor is accepted, the mentor is then entered into a database at step 12. After verifying that the mentor is active at step 14, the mentor then participates in a project and creates a work indicative of the project at step 16. For example, the mentor may be asked to review an article, participate in a science project, or write an introductory letter applicable to a number of students, or may alternatively complete a project directed to specific subject matter. Furthermore, the mentor may be asked to provide expert advice on a certain topic or review various materials that originate from, or will be provided to, multiple students or other participants in the process. Alternatively, the initial project may consist solely of creating an introductory letter that will be provided to students upon their entrance to the learning network.

[0018] Once the mentor’s project is completed, it is reviewed at step 18 for appropriateness. If the reviewer determines the project is not appropriate for any reason, the mentor may be asked to modify, revise, or recreate the project at step 16. The project is then reviewed again at step 18. This cycle may occur several times and, upon completion, the mentor’s project is saved at step 20. As described in more detail below, students and mentors are matched at step 22. The matching of students and mentors may be based on various similarities between the student and the mentor or, on the other hand, may be based on similarities between the mentor’s project, if it’s directed to a specific subject matter, and the student’s interest or requirements in that particular subject matter.

[0019] In another embodiment, the mentor is not required to complete a project prior to being matched with a student as described above with respect to steps 16, 18, and 20. Instead, the mentor and student may be matched based on criteria listed above other than an initial project created by the mentor. In yet another embodiment, once the student has been matched with a mentor, they may decide on an initial project to undertake.

[0020] In addition, the relationship between student and mentor is not always one-to-one in the present embodiment. For example, a student may have multiple mentors or multiple mentors may participate together or individually to mentor a single student or multiple students. The relationships set forth herein should be understood to form a collaborative network that is not necessarily based on a one-to-one relationship.

[0021] At some point, the mentor will become matched with at least one student. The student has generally been enrolled in the program by the student’s parent or teacher at step 26, but situations could be provided whereby students could enroll themselves. Once entered, the student then is placed on the roster, saved in the database at step 28, and then matched with one or more mentors at step 22. The matching occurs through the use of a computer program that can match various aspects of students and mentors, including abilities, geographic locations, likes and dislikes, attributes, desires, comprehension level, etc. The matching of a mentor and student can also be based on subject matter. For example, if a student has an interest in a subject matter or is required to complete an assignment directed to that subject matter, he or she may be matched with a mentor who is knowledgeable about that subject matter or who has previously completed projects regarding the subject matter. The matching criteria can be selected by the operational programmer and may be based on any one or any set of unlimited criteria.

[0022] Once matched, the mentors, which may be referred to herein as “pen pals” due to the correspondence between the students and the mentors, and students move into an iterative cycle of reading or acquiring information, exploring related subject matter, and collaborating with similar participants in a social network who may provide expertise, are in the same phase of the learning process, or are interested in the same subjects. The student and mentor are introduced to each other through correspondence, which is generally always reviewed for appropriateness and which also may be self-assessed as many times as desired. In addition, the correspondence also goes to an assessor, who scores the quality of the correspondence for feedback to the student, teacher, pen pals, and parents. The cycle then repeats as often as is necessary or desired, and may use books, texts, or contents of different genres.

[0023] Specifically and still referring to FIG. 1, the student reviews the initial mentor project, which was completed by his or her mentor and saved at step 20. The student then completes a responsive project, which could be a letter, poem, report, etc., at step 32. At this point, the student may decide to perform a self-assessment cycle at step 34 where he or she may critique the completed project. The student may then decide to modify, revise, or recreate the project at step 32. This cycle may occur a number of times. At any point, the student may submit the project to be reviewed at step 36. If the reviewer determines the student’s project is not appropriate, the student is allowed to modify, revise, or recreate the project at step 32. The student again has the option of performing self-assessment on the revised project as described above. If the reviewer determines the project is appropriate, it is saved at step 38. A formal assessment of the projects is completed at step 40 and transmitted to the teacher or parent responsible for the student. The student then begins the learning cycle at step 50.

[0024] It should also be understood that the information or content being used may be books, projects, information from the news, text, artwork, or other various multimedia, and may be directed to a number of subjects, such as technology, science, social sciences, current events, literature, etc. The only requirement for the information is that it be reviewable and learnable by the student and mentor so that they can correspond about the subject matter of the information. Referring to FIG. 2, a content catalog 152 contains the information used in the learning cycle in which the student reviews and analyzes in order to select subject matter in which he or she is interested at step 154. The relevant content is delivered at step 156 and is reviewed and analyzed by both the mentor and the student. The student has the option of dropping out of the process at step 160. Otherwise, participants are guided through a writing process that stimulates critical thinking, which is reflected in their writing. The writing is then assessed. This process is described in more detail below.

[0025] After reading the information, extending knowledge, and collaborating, mentors submit written correspondence to the students created with a process-oriented writing application at step 162. Correspondence from the mentor is transmitted to a moderator at step 164, who may be either a teacher or another entity that reviews the correspondence for appropriateness and safety. The moderator releases it to the student, modifies it, returns it to the originator for revision, or
rejects it. When the moderator determines the mentor’s correspondence is appropriate, the correspondence is saved at step 166.

[0026] Once the student receives the correspondence, the student goes through the same process to generate return correspondence, which also goes to the moderator for evaluation before being released to the pen pal/mentor. The system thus enables personalization, but preserves anonymity through the correspondence process’s safety checks and balances.

[0027] This process of corresponding is also set forth in FIG. 2 wherein a student writing (which is not limited to, but which could include writings, composed music, project reports, newspaper articles, and anything that could be created by the student) is first created at step 170. The student-created writing is self-assessed as many times as the student desires at step 182, but is ultimately passed through a formal review at step 172. If the reviewer determines the writing is inappropriate, it is returned to the student at step 170 to be modified, revised, or rewritten. If the reviewer determines the writing is appropriate it is saved at step 174. A formal assessment provides the teacher and/or parent with progress results at steps 178 and 180. This entire cycle may be repeated to enhance and increase the learning associated with a singular work or with multiple works. If the cycle is repeated, the student at step 168 selects more content at step 154, and the process begins again.

[0028] Unique tools and processes are managed by the system to stimulate critical thinking, iteration, and the publication of writing for consumption by members of the social network. The system records each action, or monitors the absence of action, and manages transactions accordingly or enables the triggering of transactions based on specified business rules. The tracking of the status of each participant is used to personalize their context so they know their position as they iterate through a cyclic learning process on different subjects. The system also shares this status with other participants who are related in some manner. This status may also be used to personalize tools and the interface corresponding to the participant. For example, because the system knows that a student is currently writing about a certain subject, the writing process is tailored to the student’s level, subject matter, genre of writing (e.g., poem, letter, science report), and phase of the writing process (e.g., plan, draft, revise, edit, and/or publish).

[0029] The system provides a variety of loosely coupled tools that are integrated based on the attributes of the participant and which may be used in a self-directed manner by either the student or the mentor. These unique tools include:

[0030] 1. Portfolio—organizes drafts, documents, messages, notes, references, etc. Accessibility to read and write to the portfolio is integrated into the writing process.

[0031] 2. Writing—an application that guides writers through a process that includes the following steps: plan, draft, revise, edit, publish, and/or send. The writing center is context-sensitive and is dynamically tailored based upon the attributes of the writer, including grade level, reading level, the number of cycles completed, genre of writing, subject matter, and preferences.

[0032] 3. Assessment—a writer may request feedback on their writing at any stage during the writing process including post-publication. The text will be assessed based on a rubric that measures mastery of reading comprehension, writing, and critical thinking skills within the context of a genre of writing, written dialogue between two or more participants, and subject matter content.

[0033] 4. Find content—a fundamental aspect of the literacy learning process is to find and select content that two or more related participants will both read and discuss. This tool helps participants find content of interest, keep track of them, and communicate interest in them to others (e.g., student finds a book (s)he likes and the system notifies the pen pal or parent). The “find content” or “find text” tool coordinates the selection process between related participants and provides an interface for purchasing the content if applicable. Upon purchase, the system sends the content to all related participants that will read and engage in online collaborative discussion about the content.

[0034] 5. Discovery—another integral part of the learning process is to extend and integrate new knowledge. Discovery guides participants through multimedia content that is related to the subject matter or people who are subject matter experts of the content that they are reading. Moreover, discovery provides methods to access concentrations of content that are tailored to multiple learning styles (e.g., audio, text, interactive, etc.).

[0035] 6. Learning Community—the learning process takes place within a community whose members have been verified and validated. Collaborative tools for social networking are used in a self-directed manner to make connections between people (e.g., a teacher or an expert). Participants may publish items to a personal blog, connect blogs using RSS feeds, send invitations to make connections at the users’ discretion, and share references to contacts and content. The network provides a platform for increasing both comprehension and critical thinking through discussion and interaction. This aspect of the overall process further integrates with the learning process by providing an authentic audience and real-life purpose for self-expression and publishing.

[0036] Similarly to academic scholars, participants use the collection of process-based learning tools described above to discover, collaborate, critique, communicate, and build upon the work of others in order to collectively create a network for learning. The combination of these tools provides a state-related and user-role-specific seamless experience for selecting content and exploring related multimedia content, as well as a writing center that integrates other subject-related resources (e.g., vocabulary and/or themes). The system provides an integrated process for producing creative documents that synthesize reading, writing, and critical thinking in a collaborative network.

[0037] The learning system and process described above can be implemented using various technologies, including wide area networks, web servers, and logical systems. Hierarchical representations of one embodiment of a learning system implemented to make use of such technologies are set forth in FIGS. 3 and 4. Additionally, the learning process described above can be performed online or over a network. FIGS. 5 through 16 illustrate an embodiment where a graphical user interface allows a student to participate in the learning cycle and provides access to the tools described above.

[0038] FIG. 5 exemplifies a main interface available to a student to participate in the learning network system. A main clock 200 indicates to the student the next step in the learning system process. A section 210 on the interface supplies the student with other content of interest to the student. A button 220 provides the student with access to a learning community
in order to take advantage of the tools described above. A writing center button 230 provides the student with access to the writing center tools described above that provide assistance to the student in writing correspondence as shown in ensuing FIGS. 6 through 16. A section 240 identifies the student and provides the student with information specific to the student. A blog button 250 provides the student with access to “blogs” that allow the student to contribute, collaborate, and/or receive creative ideas about the learning process or the subject matter reviewed by the student. A friends button 260 allows the student to keep track of friends acquired while proceeding through the learning process. Once the student has completed the learning process with respect to one book or one project, he or she may choose another project through the use of a book center button 270. The student uses main clock 200 to keep track of his or her progress and to proceed to the next step. FIGS. 6 through 16 exemplify an interface used by the student to participate in the learning cycle once the student has completed reading or analyzing the current project. The student is guided through the creative writing process using this interface.

Example

[0039] While the present inventive method can be used in various environments, one particular environment where it is particularly effective is in the context of a program that promotes the reading of books and the writing of correspondence between students and their mentor pen pals regarding the books’ subject matter. The operating procedures for one such learning program is described below as an example in which the systems and methods of the present invention may be utilized. As used herein, the term “program operator” refers to an actual person or to a computer program that, through the use of pre-defined software, can carry out the functions of the program operator. In addition, it should be understood that some of the functions may be executed by a real person, while others may be computer-driven.

[0040] The overall process operates as follows. In general, the registration process for students and pen pals is shown graphically in the flowchart in FIG. 17. The flowchart additionally shows an exemplary process for purchasing books in the “Book Buying Configuration” portion according to one embodiment of the present invention.

[0041] First, as a prerequisite to receiving a matched student, the pen pal uploads an introductory letter to the “Workbench,” which is a part of the system that administers the process of the present invention in one embodiment. The pen pal is then matched to a student, and the pen pal’s introductory letter is uploaded to the inbox of the teacher associated with the matched student. Workbench alerts the teacher that the pen pal letter is available, and the teacher reviews, edits, if necessary, and releases the pen pal introductory letter to the matched student.

[0042] The teacher’s release of the pen pal letter to the student triggers the system change the state of the student and pen pal in the learning process and to generate automatic messages to the student that a letter has arrived and notice of the next Genre (for example, fiction) that is available for selecting books.

[0043] The student makes the first genre book selection that the teacher may review using Teacher Place. The teacher accepts, rejects, or overrides the student’s book selection. When the teacher has approved all of the book selections, an order for the books is transmitted to a distributor who can fulfill the order and send the books to the classroom teacher and the students’ pen pals.

[0044] An exemplary book ordering process is shown graphically in the flowchart in FIG. 18. As shown therein, after the book is selected and ordered, the Fulfillment Center creates the packing slip and ships the chosen genre book(s) to the pen pal according to pre-chosen methods.

[0045] Workbench alerts the pen pal of the new genre book assignment from the student.

[0046] The student composes the final draft of their introduction letter and sends it to their teacher not later than 14 days after receipt of pen pal intro letter. It should be understood that the time constraints set forth in the current example contained herein are by way of examples and should not be limiting, such that other time constraints may be used. The teacher reviews, comments, and releases the student introduction letter to the pen pal’s inbox, which completes one full cycle of letter exchange between the student and pen pal and closes the cycle. The closing of the cycle by the teacher triggers the request to ship the genre book to the student. Workbench generates a new alert to the pen pal announcing the arrival of the student’s intro letter, and the book distributor creates the packing slip and ships the books to the classroom according to a pre-specified method.

[0047] The pen pal receives and reads the initial genre book that has been chosen. Next, the pen pal reads the student’s introduction letter, composes a genre letter, and uploads it via Pen Pal Place, the website that pen pal’s use, to the teacher’s not later than 14 days after receipt of the student’s introduction letter. Workbench generates message alerts of to the teacher with the arrival of each pen pal letter until all pen pal letters have been uploaded.

[0048] The teacher reviews, edits, if necessary, and releases the pen pal letters to the respective students. The release of the pen pal letters to students by the teacher triggers Workbench to generate an automatic message alert to the students and the availability to select a book of a new genre to the teacher and student.

[0049] The student makes the next genre related book selection. The teacher accepts, rejects, or overrides the student’s book selection using Teacher Place. Workbench sends an order for the books to a book distributor such as Ingram or Amazon who creates the packing slip and ships the next genre books to the pen pals according to the pre-selected method.

[0050] Workbench alerts the relevant pen pals that they have a new genre book assignment from the respective student(s). The relevant student composes a letter about the book and sends the letter to the teacher’s Letter Approval Queue not later than 14 days after receipt of the pen pal’s letter related to the first book.

[0051] After completion of one or more cycles of reading and writing with respect to a particular genre, the teacher may review, comment, and release all student letters to their pen pals where they are accessed using Pen Pal Place to close out a particular genre of books. The teacher’s closing of the genre triggers a program request to ship the next genre books to students according to the method specified. Workbench generates a new alert to pen pal announcing the arrival of the student’s letter. The book fulfillment partner creates the packing slip and ships the books to the classroom according to the method specified.

[0052] As can be seen, the release of pen pal letters to the students by the teacher triggers Workbench to generate and
post an automatic message of Book Selection Availability to Teacher and Student Places. The students may choose a book title and forward it to their teacher’s inbox. Teachers will accept, reject, or override the selections made by the student before saving and uploading the completed order to Workbench through Teacher Place. Upon receipt of the Teacher’s book selections, Workbench generates an automatic message of “THANKS” to the teacher verifying and confirming receipt of the selections. Workbench also generates an automatic message to the pen pals announcing the new book selection title en route from the student. Workbench sends an order to a book distributor to ship the books to the pen pals based on the selections made by each classroom.

[0053] Student books are shipped only after teachers release the student letters to the pen pals, thereby signaling the close of the cycle.

[0054] Teachers can make and Book Selections as soon as they receive notice that it is time to select books or as late as the due date for the current genre student letters. It is preferable that the selections be made no later than this due date so as to provide enough time for pen pal shipments. If the book selections are not made by this due date, Workbench generates an automatic message to the teacher that the book selections due (on a specific day) are tardy and that the students will receive the default book title for his/her grade level and genre. In one embodiment, the message states that selected book titles are on a first come, first serve basis and will not be changed for any reason.

[0055] Workbench generates an automatic message to the teacher confirming the default book selection title and an automatic message to the pen pals announcing a new book selection is en route from the student. Workbench sends the order sorted by classroom to the Fulfillment Center Site, a third party book supplier, for shipping to pen pals. The Fulfillment Center creates the packing slip and ships the books to the pen pal according to the method specified. The Fulfillment Center sends a record of book shipments and deliveries back to Workbench.

[0056] Screening software filters all student and pen pal letters uploaded to Workbench before they are deposited into the individual Teachers’ Letter Approval Queues. Teachers use the website, Teacher Place, to access the queue (list) of letters to screen and approve or reject. The teacher can either select a letter from the list, open and read the letter, and then select the appropriate action or they may mark a checkbox approving the letter from the interface that displays the list of letters. Teachers may delete identifiable information, such as surnames, school names, date of birth, and addresses, within the student and pen pal letters before sending them to the respective pen pals and students. Teachers and pen pals send to Workbench Help Desk any letters containing content deemed questionable or inappropriate they wish to escalate for appropriate action. Workbench generates an automatic confirmation message to the teacher or pen pal for reporting an issue. Staff will contact affected participants and determine an amicable solution such as revising the content and resubmitting the letter to the teacher.

[0057] The teacher may compose and send or post messages to the teacher’s students, the students’ pen pals, and other teachers participating in the program through the Writing and Message Centers using pre-populated addresses. Teachers may also develop moderated discussion forums on appropriate, grade-specific subject matter and topics for the classroom students associated with the teacher.

[0058] The pen pal may compose and send or post messages to the relevant student through the student’s teacher and to other pen pals via Pen Pal Place Writing and Message Centers using pre-populated addresses. Each student may compose and send or post messages to the student’s teacher and pen pal through the Writing and Message Centers using pre-populated email addresses. Students may participate in moderated discussions with their classmates through the Moderated Discussion Forums developed by the teacher, who moderate the discussion. Teachers, students, and pen pals may report messages they believe to be inappropriate. The program operator may monitor and/or edit or delete any messages.

[0059] Teachers, pen pals, and students may request program assistance or report inappropriate use at any time by visiting Teacher Place, Student Place, or Pen Pal Place, respectively, and selecting “HELP”.

[0060] Teachers use Teacher Place to enter the class roster of student(s), which may include the student’s name, ID, grade, and gender or other attributes.

[0061] Workbench generates student login usernames and passwords immediately following the teacher’s data entry of student information. Teachers distribute the usernames and passwords to the respective students. Workbench generates an automatic message to the teacher “welcoming the class,” confirming receipt of the class roster, and informing the teacher that pen pal assignments for the students are being generated. Teachers also have the option of inviting users to become pen pals and explicitly match pen pals with students.

[0062] Teachers and students receive pen pal assignments not later than 48 hours following the entry of information corresponding to the last student. Students are typically matched to pen pals at a one-to-one ratio but may be matched at other ratios as described above depending on certain factors, such as the system’s current resources, number of participants, or desired expertise.

[0063] Workbench sends the pen pal’s introductory letter as described above to the teacher’s inbox and generates a corresponding automatic message to the teacher. Teachers review, edit, if necessary, and release the pen pal intro letter to the student’s inbox.

[0064] The students’ parent or guardian may opt the respective student out of the program at the beginning of the school year or decide to discontinue their child’s participation in the program at any time before the end of the school year by requesting such action via the teacher. The teacher can also terminate a student’s participation for cause, such as submitting inappropriate material. The teacher will access the class roster through Teacher Place, enter the reason for cancellation or termination, and deactivate the student. Workbench unmatches the student from any applicable pen pals, generates an automatic message to the student’s teacher confirming the student’s status change, along with the reason for the change, and that the student has been unmatched from the pen pal, and alerts the pen pal of the student’s status change, including the reason, and that the pen pal has been placed on the waitlist for a new assignment.

[0065] A student’s participation may be terminated upon failing to submit letters. Workbench generates an automatic message that a letter due on a specific date is tardy once five (5) days following the due date have passed. In one embodiment, if the letter has not been uploaded within 15 days following the due date and the teacher has not marked the student as absent, the system indicates that the student has failed to
complete a letter assignment for one genre, and Workbench marks the student absent and generates an electronic message to the student reiterating the importance of letter submission on schedule so as not to diminish the student’s or the pen pal’s experience and that participation will be terminated if the student fails to submit a letter for the next genre.

[0066] Should the student submit the letter within the 15-day period during which the letter was deemed tardy, Workbench generates an automatic message of “THANKS” to the student for submitting the letter and reiterates the importance of completing assignments so that the student continues to build reading, writing, and thinking skills. Should the student fail to submit a letter for a second consecutive genre, Workbench generates an automatic message to the teacher and student stating that the letter due on the specific day is tardy five (5) days following the due date. Day 15 after the due date if the teacher doesn’t mark the student absent and the student fails to submit the letter within 15 days following the due date, the system indicates that the student has failed to submit the letter for a consecutive genre, i.e., a second offense, and Workbench generates an automatic message requesting that the teacher verify the student’s classroom status and whether the student’s participation should be terminated for failure to follow the program’s rules of conduct.

[0067] Depending on the outcome of the above process, staff may deactivate the student through Workbench, which un-matches the student from the associated pen pal and generates automatic messages to the student’s teacher and pen pal regarding the student’s status change, including the reason therefore, and that the pen pal has been waitlisted for a new assignment.

[0068] The teacher closes out each genre with a letter from each student and/or includes an explanation for any missing student letters. In the present embodiment, these explanations are forwarded to the appropriate pen pals.

[0069] Teachers report any difficulty submitting letters to the Workbench Help Desk through Teacher Place, and Workbench generates an automatic message of “THANKS” for reporting the issue.

[0070] Should the teacher fail to submit student letters fifteen (15) days after the due date or elects not to submit letters, the teacher may be terminated from the program due to non-compliance. Should the teacher submit letters representative of a partial classroom, fail to contact any affected pen pal who does not receive a letter with an explanation, or fails to close out the genre completely, Workbench marks any student for which a letter has not been uploaded as absent, thereby closing the genre after a predetermined amount of time, which is approximately fifteen (15) days following the due date in the present embodiment. Workbench generates an automatic message to the teacher reiterating the importance of staying on task and meeting the system’s terms of service so as not to diminish the experience for the students or pen pals, and that a second offense may result in the classroom’s termination from the program.

[0071] Students are marked absent with reason such as an illness when the teacher closes the genre if no letter is uploaded. A student marked absent has up to fifteen (15) days after the relevant due date to complete the letter before the assignment is tagged as a failure to follow the program’s rules of conduct.

[0072] Should a pen pal withdraw or terminate during the process described above, the program operator deactivates the pen pal, and Workbench un-matches students from the pen pal and generates an automatic message to the student’s teacher regarding the pen pal’s status change, which includes the reason for the change, that the student has been re-matched to a new pen pal, and the new pen pal’s name. Workbench generates a standard close-out letter of explanation from the departing pen pal to the student and introduces the new pen pal. Workbench generates an automatic message to the new pen pal with the student’s name, current book assignment, and any upcoming letter due date. The program operator sends a standard email to the former pen pal thanking the pen pal for participating in the program. It should be understood that the messages generated by the system or its users may be customized depending on the particular requirements and characteristics of each system.

[0073] A student may compose and send or post messages to the student’s pen pal through the teacher via the Writing and Message Centers using pre-populated addresses. The student may participate in discussions with the student’s classmates. Messages from students are monitored by the teacher through the Moderated Discussion Forums developed by the teacher. The student may compose and send messages to the student’s teacher through the Writing and Message Centers using pre-populated addresses. The student may participate in moderated discussions with the student’s classmates that are moderated by the teacher through the Moderated Discussion Forums developed by the teacher.

[0074] The teacher portion of the system is administered as follows. In one embodiment, teachers access the program’s website and complete a program application and/or agreement, thereby agreeing to all terms of service, for approval, along with their grade level, school, email address, and preferred shipping address. Applications are reviewed by the program managers and are either approved or rejected. Upon completion of the review process, the teacher is notified of approval or rejection as a participant.

[0075] In the current embodiment, staff manually enter initial information for approved schools and teachers into Workbench and initiate the classroom status, which includes associating the teacher with the corresponding classroom. Teachers preferably display an adequate degree of knowledge of the program flow and demonstrate proficiency in navigating through Teacher Place as well as Student Place.

[0076] Each teacher preferably commits to participate for the full school year and attends an orientation session. Upon completion of the orientation, Workbench generates a “Welcome” message to the teacher that includes the teacher’s username and password, as well as information directed to the process for enrolling students, participation criteria for students, and information directed to various other aspects of the system, such as privacy and COPPA.

[0077] If circumstances exist requiring a teacher to withdraw, the teacher sends an email preferably identifying the reason for withdrawal to the Workbench Help Desk through Teacher Place. Workbench generates an automatic message of “THANKS” for reporting the issue, prohibits access to the system by the teacher, and un-matches students associated with the teacher from their pen pals. Workbench generates automatic messages to any applicable pen pals regarding the status change of the corresponding students, along with the reason, as well as an indication that they pen pal has been placed on the waitlist for a new assignment. The program operator sends a close-out letter to the teacher, along with a
copy to the associated Principal of the teacher’s school in one embodiment, thanking the teacher for participating in the program.

In one embodiment, teacher participation may be terminated upon missing one genre of letter submission. Five (5) days after the due date, Workbench generates an automatic message to the teacher that letters due on a specific date are tardy, that reiterates the importance of complying with the terms of service for participation so as to ensure a positive rewarding experience for students and pen pals, and requests an estimated time of arrival for the student letters. The teacher contacts all pen pals with an explanation for the tardiness and includes an estimated time of arrival for the letters. The program operator generates a message regarding the delay and includes the teacher’s explanation and estimated time of arrival for the letters. Ten (10) days following the due date, Workbench generates an automatic message to the teacher that pen pals are still awaiting student letters and that termination from the program will result if letters are not uploaded in the next week. Letters that have not been received for fifteen (15) days after the due date indicates the teacher failed to submit letters to closeout that genre, and the program operator sends an email message to the teacher, copying the teacher’s Principal, reiterating the importance of the teacher’s commitment to excellence made at the beginning of the school year. In one embodiment, the system terminates services to the teacher and forfeits the teacher’s participation. Workbench deactivates the teacher and un-matches students associated with the teacher from any corresponding pen pals, generates automatic messages to the students’ pen pals regarding the students’ status change and indicating that they have been placed on the waitlist for a new assignment. Should the teacher submit letters within the 15 days of the original due date, Workbench generates an automatic message of “THANKS” to the teacher for submitting the letters and reiterates the importance of submitting assignments on time so as not to diminish the experience of the students and pen pals. The teacher contacts all affected pen pals with an explanation for the tardiness in order to close out the genre so that the next series of books can be shipped to the students.

The pen pal portion of the system is administered as follows. First, a prospective pen pal is evaluated and registered by accessing a controlled website that is administered by the program operator. The pen pal, after entering an email address and creating a password at the initial screen, completes the pen pal application and agreement. Upon completion and successful submission of the application, the prospective pen pal receives an online “thank you” for completing the application.

Workbench sends an automatic message indicating that the program operator is processing the application and agreement and will contact the pen pal upon completion of the process and security check, which generally occurs in about fourteen (14) days in a preferred embodiment.

If the pen pal passes the security check, such as a criminal background investigation and search against a national registry of sex offenders, the program operator will send an online “Welcome” email indicating that the security check is complete and will provide information on privacy, COPPA, etc. The message will also request that the pen pal use a username and password, which the pen pal uploads when the pen pal completed the application, in order to access an online site area entitled “Pen Pal Place.”

If the pen pal fails the security check, the program operator sends an email to the pen pal stating that the pen pal failed to meet the program criteria.

After the pen pal completes the application process successfully and agrees to follow all terms of service, including notifying the system as to any changes in contact information for the pen pal, such as changes in mailing or email addresses, the pen pal is asked to change the provided password and is invited to modify the profile associated with the pen pal the first time the pen pal accesses the system. The pen pal may provide preferential information to the program operator in the profile to assist the system when determining which student is a better match to the pen pal.

An initial message welcomes the pen pal to the program and provides helpful hints and instructions on completing the initial introductory assignment, which may be a letter of introduction, prior to being matched to a student as described above. The pen pal then composes, edits, and submits the introductory letter to Workbench.

The program operator makes the initial match of pen pal to a student on a first come, first serve basis from a pool of pen pals who have successfully completed the application process, including submission of an introductory letter. In making the match, the program operator may take into account any preferences noted in the pen pal’s profile, such as the grade or skill level of a prospective student.

Workbench generates an automatic message to the pen pal introducing the student matched to the pen pal, the current book assignment, and the due date for a letter directed to the assignment. The systems sends the pen pal’s introductory letter to the Letter Approval Queue of the teacher associated with the matched student. During the assignment process, the program operator may realign pen pals to the next available student when necessary, thereby causing Workbench to generate an automatic message with a new match assignment, which includes the student’s name, the student’s current book, the writing assignment, and the corresponding deadline.

Pen pals remain active until they cancel their participation or are terminated. Should the pen pal need to withdraw from the program, the pen pal completes a request via the Contact Us link on Pen Pal Place, indicating the reason for withdrawal. Workbench generates an automatic message of receipt and a “THANKS!” for reporting the issue. The program operator deactivates the pen pal, and Workbench un-matches students from the pen pal and generates automatic messages to the unmatched students’ teacher regarding the pen pals’ status change, along with the reason for withdrawal and an indication that they have been or will be re-matched to a new pen pal. Workbench generates a standard close-out letter from the pen pal to the student and introduces the new pen pal to the student according to the process described above. Workbench generates an automatic message to the new pen pal with the student’s name, current book assignment, and any upcoming due date. The system sends a standard email to the former pen pal thanking the pen pal for participating in the program. In another embodiment, the program operator generates a report regarding withdrawals to volunteer organizations or corporations, from which the pen pals are recruited.

In one embodiment, pen pal participation may be terminated when the pen pal misses letter submissions for two genres. When the pen pal misses a first letter deadline, Workbench generates an automatic message that the letter due on a
specific day is tardy and reiterates the importance of submitting assignments on time so as not to diminish the experience of the teachers and students. Workbench may also warn that termination may result if the pen pal fails to submit a letter for another cycle. In one embodiment, the message inquires if the pen pal is experiencing difficulty adhering to the program timeline and requesting that the pen pal contact the program operator to discuss any issues.

When a pen pal is replaced, the system requests the new pen pal to write to the student. The volunteer pen pal composes, edits, and submits the letter to the teacher’s Letter Approval Queue. The teacher will review, edit, if necessary, and release the letter to the student.

Should the pen pal fail to submit a letter for a second genre, Workbench generates an automatic message notifying the pen pal that this is the second offense of a tardy letter, and reiterates the pen pal’s commitment to excellence, the importance of meeting deadlines, and states that the pen pal’s services are no longer required and that program participation by the pen pal has been terminated. The pen pal is replaced with another pen pal, and the process continues as described above.

The program operator deactivates any terminated pen pal through Workbench, which un-matches any students associated with the pen pal from the pen pal and generates automatic messages to the students’ teacher regarding the pen pal’s status change, along with the reason for termination and the fact that the student has been assigned to a new pen pal. Workbench generates a standard close-out letter from the former pen pal to the student, introduces the new pen pal, and generates an automatic message to the new pen pal with the student’s name, current book assignment, and any upcoming due date. The program operator sends a standard email to the former pen pal thanking the pen pal for participating in the program.

Pen pal letters are handled as follows. First, Workbench generates an automatic message to pen pals that a letter by the student matched to the respective pen pal has been posted to the pen pal’s inbox. Then the pen pal composes, reviews, edits, and uploads a letter to Workbench via Pen Pal Place not later than the scheduled due date, which is approximately 14 days in the present embodiment. Workbench generates an automatic message to the corresponding teachers that the pen pals’ genre letters have been posted to the teachers’ Letter Approval Queue.

The teachers review, edit, if necessary, and release the pen pal letters via Teacher Place either individually or by a batch process to the students’ inbox. Workbench generates an automatic message to the student indicating the student has a new letter from the pen pal.

The pen pals report any difficulty submitting letters via the Contact Us link on Pen Pal Place, and Workbench generates an automatic message of “THANKS” for reporting the issue. In a preferred embodiment, Workbench help desk staff or the program operator responds with a disposition of the issue not later than 48 hours after the reporting.

The pen pal receives an email from the corresponding teacher if the student’s letter is expected to be at least one day late, but not later than 14 days as described above, or if the student is unable to write for this genre. The message preferrably includes the reasons for delay or inability.

The pen pal may request to be re-matched by completing a request form via the Contact Us link on Pen Pal Place.

Pen pals may escalate student letters with questionable content to the program operator for resolution if the pen pal is unable to resolve the issue with the teacher.

When the pen pal misses a letter deadline, Workbench generates an automatic message that the letter due on a specific day is tardy and reiterates the importance of submitting assignments on time so as not to diminish the experience of the teachers and students. Workbench may also indicate that participation termination may result if the pen pal fails to submit a letter for another genre. In one embodiment, the message inquires if the pen pal is experiencing difficulty adhering to the program timeline and explaining that, if true, the pen pal should contact the help desk or the program operator to discuss the issue(s). If the match between the pen pal and student is not appropriate, another volunteer pen pal is asked to write to the student.

The pen pal may compose and send standard email messages to the teacher of the matched student, to the student, or to other pen pals via Pen Pal Place Writing and Message Centers using pre-populated addresses. A pen pal may escalate or report messages deemed inappropriate to the program operator via Pen Pal Place by selecting the Contact Us link.

While one or more preferred embodiments of the invention have been described above, it should be understood that any and all equivalent realizations of the present invention are included within the scope and spirit thereof. The embodiments depicted are presented by way of example only and are not intended as limitations upon the present invention. Thus, it should be understood by those of ordinary skill in this art that the present invention is not limited to these embodiments since modifications can be made. Therefore, it is contemplated that any and all such embodiments are included in the present invention as may fall within the scope and spirit thereof.

What is claimed is:

1. A method for enhancing the learning of students comprising the following steps:
   a. enrolling a student and a mentor in a learning program;
   b. matching a student and a mentor based on selected criteria;
   c. selecting appropriate information to be shared between the student and the mentor;
   d. having the student create a student document based on the information to be shared;
   e. transmitting the student document to the mentor;
   f. having the mentor review the student document and creating a mentor candidate document based on such review and based on the information to be discussed between the student and the mentor;
   g. reviewing the mentor candidate document for appropriateness and, if appropriate, allowing it to become a mentor document;
   h. transmitting the mentor document to the student for review;
   i. assessing the student document to create an assessment of the student’s learning enhancement; and
   j. transmitting the assessment to a teacher, parent, or other supervisor.

2. A method for improving literacy through an education network including a plurality of participants comprising the following steps:
   a. validating a first participant;
   b. receiving a first work created by the first participant in regard to a first project;
c. validating a second participant;
d. matching the first participant to a second participant based on a first set of selectable criteria.
e. receiving a second work created by the second participant in regard to a second project.
3. The method of claim 2.a further comprising
a. providing an assessment of the second work to a third participant.
4. The method of claim 2.a further comprising
a. reviewing the second work for appropriateness.
5. The method of claim 4.a further comprising
a. requesting the second participant revise the work if not appropriate.
6. The method of claim 2.a wherein
a. the first project is the same as the second project.
7. The method of claim 2.a further comprising
a. transferring correspondence from the second participant to the first participant.
8. The method of claim 7.a wherein:
  a. the step of transferring correspondence is performed pursuant to a blog.
9. The method of claim 7.a further comprising
a. repeating the step of transferring correspondence; and
b. monitoring the transferred correspondence.
10. The method of claim 7.a further comprising
a. tailoring events to the first and second participants based on the step of transferring correspondence.
11. The method of claim 2.a wherein
a. the selectable criteria is selected by a program operator.
12. The method of claim 2.a wherein
a. the first set of selectable criteria comprises the work of the first participant and an interest of the second participant.
13. The method of claim 2.a wherein
a. the first set of selectable criteria comprises an interest of the first participant and an interest of the second participant.
14. The method of claim 2.a wherein
a. the first set of selectable criteria comprises at least one similarity between a profile of the first participant and a profile of the second participant.
15. The method of claim 14.a wherein
a. the similarity is based on a geographic location.
16. The method of claim 2.a wherein
a. the first set of selectable criteria comprises a subject matter required by the second participant, wherein the subject matter corresponds to the work.
17. The method of claim 2.a further comprising
a. reviewing the work.
18. The method of claim 17.a further comprising
a. asking the first participant to modify the work.
19. The method of claim 2.a further comprising
a. modifying the work; and
b. repeating the step of reviewing the work.
20. The method of claim 2.a wherein
a. the work is a letter.
21. The method of claim 2.a wherein
a. the work is a poem.
22. The method of claim 2.a further comprising
a. monitoring a current status of each participant.
23. The method of claim 2.a further comprising
a. monitoring information transferred between participants.
24. The method of claim 2.a further comprising
a. validating a third participant; and
b. matching the third participant to the second participant based on a second set of selectable criteria.
25. The method of claim 2.a further comprising
a. administering at least one negative consequence to one of the participants for failure to participate in the education network.