Dr. Neetu Jain\*

#### **Abstract**

An attempt has been made in this paper to understand both the Teaching and the Learning Process. This Paper has been divided into two parts. In part -I, focus is on the Learners and facilitation of Learning. In part -II focus is on Teacher and Teaching Pedagogy. In this part ,two theories i.e Change model for Facilitation of Learning & Pygmalion Effect in a Classroom Setting will help understanding the facilitation of Learning Process of Learners: Teachers can create better students just by believing in them(Pygmalion effect). The goals for student learning outcomes are far more extensive and ambitious than ever before. In part-II ,we aim to explore the role of adopting good teaching pedagogy and develop a pyramid of Teaching- Pedagogy. Good faculty can help improve bad systems but even good systems with bad faculty can not lead an institution towards excellence. Therefore, roles of a teacher with reference to a student are also discussed. This section of the paper elaborates A-Z of Teaching Pedagogy to make teachinglearning process more vibrant i.e. all the factors from A to Z which are responsible for enhanced learning.

# Making Teaching – Learning Process More Vibrant for Better Results

#### Introduction

he famous couplet of Kabirdas obviously suggests greater reverence for Guru than God because it is Guru who illumines the path of his disciples and acts as a beacon light for them. Infact, today there is a great need to realize the importance of teachers in social transformation. Teachers constitute the most important critical success factor (CSF) for excellence in education. A good teacher will ignite creative minds and facilitate in developing great qualities of head and heart among students.

From the earliest civilizations, teaching has always been a sacred profession. It has inspired our deeply held human values and ignited our inner desire for human perfection through learning. Earlier ,such learning and teaching had been associated primarily with religious and spiritual

<sup>\*</sup>Asst.Prof. Fore School of Management, NewDelhi, E-mail:- neetujain@ffm.ac.in

traditions than with secular and practical affairs of human livelihood. The long history that goes beyond the sacred traditions indicate that people are born to learn and teach each other. Thus, education is as natural as the symbiotic relationship between a mother and a child. From a process of learning –and teaching nexus, one would mutually reinforce a transformational outcome for the betterment of a teacher and a learner. (Medis, 2006)

An attempt has been made in this paper to understand both the Teaching and Learning Process. This Paper has been divided into two parts. In part –I focus is on the Learners and facilitation of Learning. In part –II focus is on Teacher and Teaching Pedagogy. In this part ,we aim to explore the role of adopting good teaching pedagogy by seeking to define A to Z of Teaching Pedagogy , roles of a teacher with reference to a student and develop a pyramid of Teaching – Pedagogy

## Learning Process

First of all, it is worthwhile to understand what is Learning? Learning has been described as a relatively permanent change in behavior that occurs as a result of insight, practice or experience. Learning may be simply an addition (new information); it may be a subtraction (unlearning a bad habit); or it may be a modification (adjusting new knowledge to old). Learning as a change may be for the better or for the worse. Learning may be conscious or unconscious. Learning is such a complicated process that no one can really claim to know how it occurs. Learning takes place more readily in some circumstances than in others and to a great extent it can be influenced. To facilitate learning a teacher needs to understand the various factors which bear upon the learning process of students. Previous learning and experiences affect a student's perception and expectations. The learning is reflected in behavior. A change in an individual's thought process or attitudes, not accompanied by behavior, is no learning. Two theories given below will help in understanding the facilitation of Learning Process of Learners:

- I Change model for Facilitation of Learning
- II. Pygmalion Effect in a Classroom Setting

# I. Change Model for Facilitation of Learning:

It is pertinent to discuss Kurt Lewin's theory of Change process for understanding its implications for enhancing learning of learners in a classroom setting.

## Kurt Lewin's Theory of Change Process:

Kurt Lewin suggested three steps for an organization willing to move from present to future state. These three steps are:

Unfreezing

Change

Refreezing

### Unfreezing:

The manager as a change agent has to assume the responsibility to break open the shell of complacency among his subordinates. He has to identify the background factors contributing to resistance to change. The interplays among the several factors responsible for resistance have to be isolated. Through a series of discussions with the subordinates, it should be possible to explain them the problem with the present state of affairs and the need for change, the pace and volume of proposed change, the direction and implications of such change.

#### Change or Moving to the New Level:

Once the employees become receptive to change, the change agent introduces the proposed changes in a systematic manner with their full cooperation. Employees are given intensive orientation as to the behavioral changes necessary for successful introduction

of the proposed change so that adaptation to the new environment takes shape as desired .

## Refreezing:

It is a phase of stablisation, assimilation and institutionalization of the changes which are successfully implemented. The changes which are accomplished should remain a stable and permanent characteristic of the system until another need arises for change. The new role relationships and behavioral patterns should be allowed to take on the characteristics of habit. People must get a genuine feeling that the benefits generated by the change are worthwhile.

# Application of Kurt Lewin's model for Facilitation of Learning:

The Kurt Lewin's theory of change can be applied in facilitating the learning of the learners. For applying this theory at institutional level three steps which need to be taken into account are given below:

## Unlearning:

Alvin Toffler said , "Illiterate of 21st century will not be those who can not read and write but those who can not learn, unlearn and relearn."

Since childhood every student has been programmed to behave in a particular way. They have predefined beliefs, attitudes and assumptions. Past learning influences their behaviour and thinking. If learning is to take place then they need to shed away their unfounded assumptions and old nasty behaviour. When a student joins a college and starts attending classes, his unlearning is to be emphasized. In this context unlearning means breaking down their old beliefs, attitudes and assumptions so that they start with a clean slate. When students move from school to college, they may have the assumption that they would not be compelled to sit in the class religiously and thereby may have a very casual attitude towards their studies. This process of unlearning will make them aware about the need for change in their attitude and prepare them for change. By asking questions, making them play some management and simulation games, administering questionnaires, providing some exercises and by conducting microlab and mind stilling exercises ,unlearning can be targeted.

## Change:

It is a process of moving to a new situation. Once the unlearning has been completed, students are ready to accept the changes which may involve a change in their behaviour, style and attitude towards studies and various other things in life. In this step the students' learning and behavior patterns have to be redefined. New and innovative methods of teaching by a responsible teacher can reassign new patterns of behavior. Students can be psychologically impressed upon to identify themselves with some given role models whose behavior they would like to adopt and would like to become like them. Efforts should be made for changing their thought process in order to adjust to a new environment. New ways of behaving and learning are to be developed.

### Relearning:

Relearning occurs when the new way of behavior becomes a normal way of life. The new behavior must replace the old behavior completely for successful change and it must be continuously reinforced so that this new behavior does not diminish. Reinforcement can be given by rewarding them for their appropriate or better behavior, handling their queries and resolving their personal and professional doubts and issues.

# II. Pygmalion Effect (Self Fulfilling Prophecy) in Classroom setting:

All it takes is really believing. Teachers can create better students just by believing in them.

It is a persistently held belief in another person such that the belief becomes a reality. This uniquely human phenomenon is called the Pygmalion Effect. Limited expectations bring limited results, high expectations lead to exceptional results. If a teacher is told that a child is bright, the teacher will be more supportive, teach more difficult material, allow more time to answer questions, and provide more feedback to that child. The child receiving this attention and basking in the teacher's belief learns more and is better in school. It does not matter if the child is actually bright. All that matters is that the teacher believes in the child. . People tend to live up to the expectations they have for themselves or the expectations others have for them. We can make a great difference in empowering our students by first having great expectations for them.

## Communicate high expectations:

A 1987 study conducted by Brophy and Good observed teacher-student interaction and concluded that teachers may unconsciously send different messages to low achievers than to high achievers. Low achievers often receive insincere praise, less feedback, and more criticism. In addition, these students tend to be called on less often and given less time to respond. The lesson from the Brophy and Good study is that even the most dedicated teachers may be sending subtle, nonverbal cues that they expect less of certain students. Children don't fail to miss these cues, and they react accordingly.

Students feel valued by simple gestures, such as eye contact and open smiles. A positive attitude can truly work wonders because students intuitively sense that the teacher has a genuine interest and belief in them. Early assumptions one makes about a student can often become self-fulfilling prophecies. A student labeled as "gifted" may succeed, while a student branded as a "troublemaker" or as a "low achiever" might fall behind.

### Belief in potential creates potential

In 1968, Dr. Robert Rosenthal did the following experiment to test the validity of the Pygmalion Effect. At an elementary school, teachers were given the names of students who had been identified as those with high intellectual abilities. The teachers were told to expect more from these students. In reality, the students were chosen at random. After eight months, however, the students who had been identified as the "brightest" did in fact have higher increases in their achievement scores than those who had been identified as average. The high expectations of the teachers had resulted in higher achievement by the students. It is believed that the students were given more attention and that the teachers' behaviors likely produced increased student confidence as well as a desire by students to study and do well.

## Implications of Pygmalion Effect:

Therefore, prophecy needs to be given to the students so that they can do better. Students are quick to pick up the expectations of successes and failures that others have for them. The positive or negative expectations shown by the Parents, Teachers, Counselors ,Principals, Peers affect students' expectation and hence their learning behavior eg. when a teacher signals his or her lack of confidence in the ability of the students to understand certain subjects, the students may loose confidence in their ability and may perform more poorly than they otherwise might. Expect more and you will get more. High expectations are important for everyone - for the poorly prepared, for those unwilling to exert themselves, and for the bright and well motivated. Expecting students to perform well becomes a self fulfilling prophecy when teachers and institutions hold high expectations and make extra efforts. Don't forget the importance of having high expectations for others and clearly communicating those expectations

Sl.NO	ROLE	RESPONSIBILITY
1	Communicator	Ability to convey what he knows
2	Disciplinarian	Disciplining the students for proper Class Management
3	Evaluator	Evaluating the students and finding out their potential
4	Role Model	Setting example by walking his talk
5	Mentor	Guiding students in their professional aspects
6	Counselor	Resolving their personal issues and problems
7	Facilitator	Involves students in various group exercises
8	Patient Listener	Giving them a patient hearing and maintaining his cool
9	Linking Pin	Communicating the expectations of different interested
		groups to students or vice versa
10	Surrogate Parent	Nurtures and cares for the students

# Art of Teaching : A to Z of Teaching Pedagogy :

Making Teaching – Learning Process more Vibrant: Good faculty can help improve bad systems but even good systems with bad faculty can not lead an institution towards excellence. A great teacher will inspire his pupils and leave a permanent mark in the process of personality development of the students. This section of the paper elaborates A–Z of Teaching Pedagogy to make teaching–learning process more vibrant i.e all the factors from A to Z which are responsible for enhanced learning.

A to Z	Teaching –Learning Pedagogy	
А	Accommodate students' preferred learning style	
В	Begin with what the student knows	
С	Climate setting	
D	Divide lecture into micro lecture	
Е	Enhance contact between student & Faculty	
F	Focus on Team based approach	
G	Give prompt feedback	
Н	Have the knack of generating interest	
I	Involve all	
J	Judge and evaluate fairly	
K	Knowledge of the subject	
L	Learn names fast	
М	Make Field Trips	
N	Narrate Stories& Illustrations	
0	Organise the Lecture	
Р	Prepare for Learning	
Q	Query about understanding	
R	Reward desired learning with praise	
S	Social transmission	
Т	Theory to Practice	
U	Use Paraphernalia	
٧	Values are to be inculcated	
W	Welcome curiosity	
X	Xrcises for sustaining interest	
Υ	Yearning for knowing the latest trends	
Z	Zap the gaps	

# A- Accommodate the students' preferred learning style

Students bring different talents and styles of learning to college. Brilliant students in the seminar room may be all thumbs in the lab or art studio. Students rich in hands-on experience may not do so well with theory. They need the opportunity to show their talents and learn in ways that work for them. How quickly and well a student learns depends not only on his or her intelligence and prior education, but also on the student's learning style preference.

Visual learners gain knowledge best by seeing or reading what you are trying to teach; auditory learners, by listening; and tactile or psychomotor learners, by doing. Chances for teaching success can be improved if learners' preferred learning style is assessed and then teaching activities are planned accordingly and teaching tools appropriate to that style are used To assess learning style, different teaching tools, such as printed material, illustrations, videotapes, and actual equipment can be experimented.

## B- Begin with what the student knows

Learning moves faster when it builds on what the student already knows. Teaching that begins by comparing the old, known information or process and the new, unknown one allows him to grasp new information more quickly. Therefore, attempt should be made to extract information about a topic from the students only. It can be described later which may illustrate or amplify the topic or issue. The student will find learning more rewarding if he has the opportunity to master simple concepts first and then apply these concepts to more complex ones. However, what one student finds simple, another may find complex. Therefore, a careful assessment needs to take these differences into account

## C- Climate Setting

A prerequisite for effective learning to take place is the establishment of a climate that is conducive to learning. Following types of climate can be established:

## i) A climate of mutual respect:

People are more open to learning if they feel respected ,If they feel that they are talked down to embarrassed , or otherwise denigrated, their energy is diverted from learning to dealing with these feelings.

## ii) A climate of collaborativeness:

A climate of collaborativeness rather than competitiveness must be created. Learners should see themselves as mutual helpers rather than rivals. For many kinds of learning, the richest resources are within their peers, hence the importance of making these resources available.

## iii) A climate of supportiveness:

A climate of supportiveness rather than judgementalness must be created. Instructor can set this climate by being supportive in his behavior.

## iv) A climate of fun:

Learning should be one of the most joyful things we do and teacher should do everything that can make the experience enjoyable. A lot of use of spontaneous (not canned) humor can be made.

#### v) A human climate:

Learning is a human activity. So try to establish a climate in which people feel that they are being treated as human beings not objects. Try to care for their human needs – comfortable chairs, timely breaks and adequate ventilation.

#### D- Divide lecture into micro lecture:

Attention span of the students keep changing in a class. Students are highly attentive in the beginning and end of the lecture. As the time passes they start absenting themselves mentally. Therefore, a lecture can be divided into small microlectures containing different activities for the purpose of sustaining their interest. viz one hour lecture can be divided into four microlectures of 15 minutes each. By dividing the lecture or information we are providing a framework for students to more readily assimilate what they are hearing in the lecture. Learners can much more easily understand and retain four main ideas than a long narrative of information. These micro lectures act as a hook on which students can hang their ideas

# E- Enhance Contact between Students and Faculty

Frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement. Faculty helps students get through rough times. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans. In order to reduce the instinctive mistrust with which people typically react to authority figures, a teacher should emphasise that he is first a human being rather than as a expert.

## F- Focus on Team based approach

Learning is more a team work than an individual experience. Students should be encouraged to work in teams so that collective learning can take place. Learning is enhanced when it is more like a team effort than a solo race. Good learning, like good work, is collaborative and social, not competitive and isolated. Working with others often increases involvement in learning. Sharing one's own ideas and responding to others' reactions sharpens thinking and deepens understanding.

## G- Give Prompt Feedback

Students need appropriate feedback on performance to benefit from courses. When getting started, students need help in assessing existing knowledge and competence. In classes, students need frequent opportunities to perform and receive suggestions for improvement. At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves. Learning is made easier when the students are aware of their progress. Positive feedback can motivate them to greater effort because it makes their goal seem attainable.

## H- Have the knack of generating interest

With the help of short stories and humor interest can be generated among the students in the lecture. If students do not feel interested they will not learn. Therefore, explain the utility of the subject. Students can be involved in experiential learning which means learning by experiences or learning by doing. For instance, if we want to make students understand the importance of team work, we can involve them into various team building exercises wherein they can be asked to cross a river together, or go for mountaineering, or river rafting which will actually make them understand the importance of concepts related to team building.

#### I- Involve all

Sometimes only intelligent students involve themselves in discussion. Effective teacher is one who involves all the students regardless of their intelligence level and level of achievement. Students do not learn much just by sitting in classes listening to teachers, memorizing pre-packaged assignments, and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences and apply it to their daily lives. They must make what they learn part of themselves. As there is a strong relation between active involvement of the students and effective learning, focus should be on involving students in the discussion. Somebody has rightly said:

"You tell, I forget

You show, I remember

You involve, I understand"

## J- Judge and evaluate fairly

A teacher is entrusted with the responsibility of fairly evaluating the students. He should not be prejudiced at any stage of his dealing with the students. If a teacher is fair ,students will respect him.. A teacher should make judgments free from prejudice and without coloring them with distorted perception. All the students should be evaluated in an unbiased manner.

#### K- Knowledge of the subject

Knowledge is sina qua non for being a good teacher. Without having the requisite knowledge a teacher can not teach anything. In the competitive marketplace, educators continually need to cultivate new knowledge and skills. This is needed because the educational enterprise is largely driven by ever changing information technology and the dynamics of multiculturalism. A skilled teacher will make a skilled student.

## L- Learn names fast

It is very important to learn the names of the students as soon as possible and call on them by name as often as possible. This step will help the instructor in relating to the students or vice versa. This is a very fundamental technique that should be implemented anytime one is interacting with students.

## M- Make Field Trips:

Field trips are a way to promote interactive learning between the classroom and the outside world. Inviting practitioners to the classroom and taking students on a field trip infuse different perspectives to academic learning. This establishes mutual respect between the academic community and the society at large. Through field trips students learn by observing, critical thinking and applying their classroom knowledge to social problems.

## N- Narrate Stories & Illustrations/ Experiences:

Relate personal examples of your experience that relate to the subject matter. In order to illustrate the dangers of running a red light, a professor asked students to reach into a jar filled with 100 capsules, one of which was cyanide. Their chances of getting the cyanide capsule were the same as the chances of colliding with another car if they ran a red light. Through stories, learners can very well relate to a given situation under discussion.

## O- Organise the Lecture

The initial step in preparing a lecture is to first determine the objectives for the lecture. A decision must be made as to what a teacher wants students to "take away with them" when the lecture is over, i.e. "what do you want your students to learn?" A lecture should be organized in much the same way that a public speech is organized. That is, it should have an introduction, a body and a conclusion. The function of each of the three major sections of the lecture is as follows:

'Tell your students what you are going to tell them.'

'Tell them.'

'Then tell them what you told them.'

## P- Prepare for Learning

Too many times the professor simply walks into the room and begins talking. When this occurs there has been no attempt made to prepare the students for what is to come. Therefore, prepare them for learning by giving them a preview of the days event. A good method is to write the days agenda on the board. When you are previewing the days event, share with your students the objectives and goals you have for this class session. By sharing this information with your students, you accomplish at least two tasks: One, you have established a plan for the day and can readily get back on course if you go "astray". Second, by knowing what they are supposed to have learned by the end of the class, students can speak up if they are not "learning that".

## Q- Query about understanding

Timely feedback regarding the pace and other aspects of teaching should be taken from the students so as to know whether they have the understood the topic or not. They also provide a accurate sense of the quality of the course and how well the professor is communicating. This will help the faculty in mid course corrections instead of always correcting after the fact. These comments or feedback from the students is critical to improving teaching.

### R- Reward desired learning with praise

Praising desired learning outcomes or behavior improves the chances that the students will retain the material or repeat the behavior. Praising your students' successes associates the desired learning goal with a sense of growing and accepted competence. Reassuring them that they have learned the desired material or technique can help them retain and refine it and internalize the learning experience.

#### S- Social Transmission:

The term "social transmission" was used by psychologist Piaget to refer to the need for learners to consistently and productively communicate what they are learning to other people. His research and that of other indicates that people learn better, faster and retain

longer when they have frequent and appropriate opportunities to verbalise and share what they are learning with other learners or with instructors. There is some evidence to suggest that effective social transmission also plays a critical role in the development of attitudes and self confidence.

## T- Theory to practice:

It is important to bridge the gap between theory and practice. Real life case studies and practical examples from industry can be used for integrating theory with Practice. Participants under the guidance of their instructor, rotate between learning and application so that as each new task, procedure, strategy and concept is learned, it is applied cumulatively to the real situation until the total desired outcome is produced. In this way not only does guided application take place, but needed attitudes (and team work) can be built or reinforced because the focus is on the end-result rather than on each isolated specific learning.

## U- Use Paraphernalia:

Props can be used eg. If you are going to talk about the evils of industrial pollution, bring a small box to class that is labeled as Pandora's box. Inside the box, place slips of paper which identify various kinds of pollutants. At appropriate times during the lecture, individual pollutants (the evils mentioned above) can be literally pulled out of the box for discussion. A teacher can also wear a specific costume, if required, eg. Wear a campaign hat if you are talking about a political system. Presentation software such as power point, video tapes and slides can be used to drive home the point.

## V - Values are to be inculcated

Teachers shape the personality of the students by building their character and inculcating values in them. Besides, sharing one's knowledge and wisdom, values are to be inculcated among the students.

#### William Ward has aptly quoted:

"The mediocre teacher is one who tells The good teacher is one who explains

## The superior teacher is one who demonstrates

## The great teacher is one who inspires"

## W- Welcome curiosity

Allow and encourage students to ask questions in your class. If you do not, it will hinder creativity of the students. Students must get clarification in order to learn something new. Asking questions is not a sign of weakness. By asking questions they will learn incessantly, at a more rapid pace than those who do not. Even the instructor should ask questions from the students. Instructor initiated questions enhance their learning by:

- Developing critical thinking skills
- Reinforcing understanding
- Correcting misunderstanding
- Providing feedback

## X- Xrcises for sustaining interest

Various simulation exercises such as Management Games, Role Plays, Inbasket exercises should be used in the classes. In lecture mode of teaching, students are just passive listeners, not active participants. Thus they loose interest in the topic as it becomes monotonous as well. Therefore, to facilitate the learning process, more than one method need to be used at a given time. Bring items that students can touch/ feel, smell, taste, handle etc. Educational videos from CNN ,ABC,PBS and the Aneenberg Series can also supplement learning from different perspectives of experts.

### Y- Yearning for knowing the latest trends

Teacher should keep himself abreast of latest developments in the field by studying various journals and magazines. Trainers i.e teachers should learn about the teaching pedagogy and endeavour to attend various faculty development and quality improvement programmes. By learning the technique of teaching and applying them in day to day teaching, one can become effective trainer. Based on his exposure, a teacher in turn will engage learners in local affairs and global thinking.

## Z- Zap the gaps

Most important function of teaching is bridging the gap between existing knowledge and desired state of knowledge of a learner. The instructor should make sure that participants have formed clearer "context" pictures so that they have all the needed elements in their minds to guide their future actions. With concept learning participants who have formed concepts can recognize when, how and why to use their learning in situations beyond the instruction..

## Concluding Note:

Teaching is more complicated than it was in the 1960s, 1970 s and 1980s, requiring us to take into account many more variables, each with its own challenge. The knowledge explosion continues unabated. New views of knowledge and knowledge construction have emerged, challenging what, why and how we teach. The goals for student learning outcomes are far more extensive and ambitious than ever before. Teaching offers a mutuality of tending, rewarding and relating that moves in two directions at once: from the teacher to the student and back again. Thus, in addition to helping people get to places in the world they want to do, teaching satisfies our deep craving for meaningful forms of social connection. Teaching is a selfless art. One surrenders to an experience that seems evanescent and difficult to measure. No series of books stands on the shelf at the end of a career to say ,I accomplished this at 30, that at 40. What remains – if one is lucky– is a returning student who might remember to say, "You changed my life- you influenced me...." But most students forget - so that what really remains, beyond praise and recognition, is the deeply satisfying sense that one's profession matters. Marcia Imbeau (College of Education and Health Professions, Outstanding Teacher Award) has aptly quoted:

"I believe an outstanding teacher is someone who not only takes great care in his/her preparation but cares that the students "get it." I also believe that a really great teacher is someone who knows that there is more to learn and is seen as someone who actively pursues new knowledge regarding not only the content of what she teaches but how she might design her class so that students come to genuinely understand the content."

## References:

- 1. Vaill,P, Managing as a Performing Art, San Francisco, Jossey- Bass, 1988
- 2. Dezure, Deborah Learning from Change, Kogan Page, 2000
- 3. Block,P,Flawless Consulting: Guide for getting your expertise used, Learning Concepts, Austin,1983
- 4. Stacey,R, ,Complexity and Creativity in Organisation, Sage publications, 1996
- 5. Mc Shane, Steven L, Organisation Behavior, TMH, 2006
- 6. Sharma, Subhash, management in new Age,: western windows eastern doors, New Age publication, 1996.
- 7. Senge ,P,,The fifth Discipline: The art and Practice of the Learning Organisation, New York: Doubleday Currency, 1990
- 8. Mendis, Patric, Teaching and Leading in the global marketplace: The use of Information Technology for Greater Democratic Transformation, Journal of Human Values, 2006
- 9. Heifetz,R & D.Laurie, The work of Leadership, Harvard Business Review, 1997, Jan-Feb issue,pp.124-134
- 10. www.ascd.org
- 11. www.scsunr.edu
- 12. www.rit.edu