

Self-directed learning activities and adaptation to isolated and confined environments. M. Levesque, Graduate Program in Adult Education and Human Resource Development, University of Southern Maine.

ABSTRACT

In a historical review of the author's personal observations and interview data collected from wintering crew members of an Antarctic research station, it was discovered that most of the crew members had engaged in self-directed learning activities during the nine-month winter period. A favorable comparison was found between three factors: (1) the number and type of self-directed learning activities completed; (2) perceived and reported levels of motivation, job performance, contributions to the quality of station life, and emotional states; and (3) Armstrong's learning-prone personality theory. A conclusion of this study was that a relationship might exist between self-directed learning activities and successful human adaptation to isolated and confined environments.

INTRODUCTION

Recently, a Russian cosmonaut completed 326 consecutive days on board a space station in orbit above the earth. This accomplishment, while remarkable in itself, is a significant step in firmly establishing long duration (six months or more) space missions as a reality. The United States is on the verge of constructing its own space station to be launched in the mid to late 1990's. Once the station is in place, American astronauts will be spending from three to six months on board. Beyond this, missions to Mars are also being planned that will require much longer periods of living in space, currently estimated at two to three years.

The ability of crew members to adapt to the conditions of living in space is crucial for mission success. Social and behavioral research conducted in analogous settings, such as Antarctic research stations, have identified various physiological and psychological symptoms associated with prolonged stays in isolated and confined environments that might affect crew performance. With the exception of improved screening procedures, however, few methodologies have been suggested or tested for facilitating human adaptation to extreme environments.

The objective of this paper is to examine the role that self-directed learning activities might play in facilitating human adaptation to isolated and confined environments. Self-directed learning activities are defined for the purposes of this paper as self-initiated actions undertaken for the purpose of achieving skill, knowledge, behavioral, or personal development for specific or non-specific ends. Specifically, this paper will

examine how the self-directed learning activities of a winter-over crew at a remote Antarctic research station may have facilitated individual adaptation to life in an environment characterized by nine months of extended isolation and confinement, five months of prolonged darkness, and -100 degree F temperatures. This study also illuminates the contribution that the adult education perspective can make in enhancing human activities, particularly outside of the more traditional areas of involvement.

The primary data for this study were drawn from the author's personal experience as a member of the 1981-1982 winter-over crew at the Amundsen-Scott South Pole Station and from the information gathered during three sets of interviews conducted by the author with 16 other crew members. The interviews were held at the beginning of the nine month winter-over period (February), at the mid-way point (June), and at the end of the winter period just prior to station opening (October). While collecting a wide variety of information, these interviews identified what kinds of self-directed learning activities were planned and undertaken by crew members and which individual crew members successfully completed them. Further research revealed possible correlations between successful completion of self-directed learning activities, personality types, crew performance, and adjustment to on-site conditions.

It should be noted that the interview questions were not originally developed with this study in mind. The responses in the interviews, however, did address certain key questions regarding what learning activities were undertaken by crew members and also provided subjective responses on how individuals felt about their experience on station. The three sets of interview questions are included in Appendix A.

BACKGROUND

The subjects of this study were the 18 members of the 1981-1982 winter-over crew at the Amundsen-Scott South Pole Station. Ages ranged from 20 to 51 with an average age of 30. Of the 16 males and two females in the crew, three of the males were married. Educational background ranged from no college experience to the PhD level, with many either having a Bachelor's or Master's degree or at least some college experience. Six people had completed some military service. Eleven of the crew occupied support positions: station manager, physician, communications coordinator, radio operator, meteorologist, meteorological technician, facilities engineer, power plant mechanic, vehicle mechanic, cook, and logistics coordinator. The remaining seven filled scientific or technical positions that primarily required data collection and instrument or equipment maintenance. Of these seven, one was a Russian exchange scientist. Sixteen crew members agreed to participate in the three interviews conducted by this author.

Amundsen-Scott South Pole Station is located at the geographic south pole on the Polar

Plateau of Antarctica at an elevation of 9301 feet above sea level. The mean annual temperature is -56 F. Average monthly temperatures range between -18 F in the summer and -76 F in the winter. The record high temperature is +7 F; the record low -117 F. Precipitation at the station is almost non-existent because of excessive atmospheric dryness. While the average wind speed is 12 knots, winter gusts have reached 47 knots, creating ground blizzards from swirling surface snow. Daylight and darkness at the South Pole each last six months.

The station consists of an aluminum geodesic dome 50 feet high and 165 feet in diameter connected to a long steel archway over 800 feet long. Under the dome, prefabricated buildings house living and working areas that include sleeping quarters, bathrooms, galley, science center, computer lab, communications center, post office, library, and bar. The biomedical research facility, generating plant, fuel depot, maintenance shops, and logistics office are under the arches. Recreational facilities include a pool table, exercise/weight room, small gymnasium, and TV and VCRs. Heat and electrical power are provided by three diesel generators. Enough fuel is stored on station to cover routine and emergency use for almost a year's time. Water is provided by melting snow, and there is sufficient food to last at least a couple of years. Communications with the outside world are by short wave radio and telephone satellite link.

Transportation to the station is provided by aircraft flights from the main U.S. base at McMurdo Station over 800 miles away. These flights operate only from early November to mid-February. The station is isolated for the rest of the year with the exception of a mid-winter air drop that occurs in June. This resupply contains mail, fresh food, and priority cargo. (National Science Foundation, 1985)

Living and working conditions at South Pole Station are arduous. During the 15 week austral summer, the station operates continuously with aircraft arrivals and departures, vehicle operation, work projects, and scientific efforts often occurring around the clock. Most crew members report that this time passes very quickly, but that station life is often hectic and overcrowded. During the austral winter, the situation reverses itself. The final flight arrives in mid-February to deliver the last of needed supplies and remove any non-wintering personnel. The remaining group of 18-20 adopt easier, individual work schedules, making it possible to not to be seen by others for a few days. Generally, most wintering crew members prefer the quiet time of winter to the hectic summer conditions. Outside conditions, however, become restrictive. The sun sets in late March and does not reappear until late September, with total darkness lasting close to five months. Temperatures begin plummeting shortly after station closing and drop significantly after sunset, averaging -80 to -90 F by the months of June, July, and

August. Winter storms increase in frequency and severity as the winter progresses. The combination of darkness, cold, and wind severely limit outside activities to only the most essential. The daily existence of crew members during this time revolves around work, sleep, meals, and personal and social activities.

The monotony of routine daily activities and of seeing the same faces each day, confining climatic conditions, and continuous darkness creates an environment characterized by boredom, reduced sensory input, and restrictions on activities. Studies undertaken on people living in isolated and confined environments have reported various symptoms that appear among those who spend prolonged periods of time in such conditions. Lower achievement, reduced efficiency of performance and thought, negative moods, reduced social interaction and communication, memory impairment, and difficulty in concentration have been noted. (Zubek, 1969, pp. 377-393) Many of these research findings were based on studies conducted at the South Pole and other remote Antarctic research stations from the late 1950's to the early 1970's. Natani and Shurley (1974), in their review of this research, listed several symptoms exhibited by wintering crew members at Antarctic stations: insomnia, irritability, headache, nightmares, anxiety, mild depression, boredom, fatigue, and reduced motivation combined with intellectual inertia, impaired memory, impaired concentration, decline in alertness, and a general apathetic state, (p. 92)

SELF-DIRECTED LEARNING ACTIVITIES

Given the great amount of free time during the winter, it was anticipated that many, if not all, of the crew members would engage in certain activities to fill this time. At an orientation conference that all crew members attended before traveling to the station, it was strongly recommended by medical and psychological screening staff that occupying one's winter leisure time by participating in activities was the best way to keep mentally and physically active and counteract the documented effects of wintering. In the first and second interviews conducted by the author, crew members were asked what their plans were for the winter and how they were progressing. Listed below by general categories are those activities the crew stated to be their winter projects:

- complete academic degree (doctoral thesis)
- create or build an item (model, dulcimer, radio, "go" board, embroidery, leather item, needlepoint, and artwork)
- exercise
- learn to play or practice a musical instrument (guitar, recorder, violin, tamberitza, trumpet, dulcimer, and harmonica)

- learn or improve a language (Russian, French, and English)
- learn or improve skill or knowledge (ocean navigation, how to tie knots, how to use woodworking tools, chess, amateur radio operation, medicine, photography, juggling, computer programming, astrology)
- miscellaneous projects (compile speleological bibliography, grow hydroponic garden)
- personal improvement (getting ready for future, sort out differences between husband and wife, think about career step, confront self for growth, develop tolerance)
- read for pleasure or purpose
- study academic or technical subjects (history, algebra, philosophy, religion, psychology, electronics, astronomy, and meteorology)
- write for personal reasons (journal) or purpose (novel or non-fiction books)

For the purposes of this study, self-directed learning activities were defined as self-initiated actions undertaken for the purpose of achieving skill, knowledge, behavioral, or personal development for specific or non-specific ends. While the interview questions did not specifically ask about planned self-directed learning activities, it is felt that most of the projects reported fall within this definition. Most also fit Tough's idea of a learning project, which he defined as "a series of related episodes, adding up to at least seven hours. In each episode more than half of the person's total motivation is to gain or retain fairly clear knowledge and skill, or to produce some other lasting change in himself." (Cross, p. 63) The self-directed nature of these learning activities is evident that few of them were motivated by outside agents and that the crew members had consciously planned to undertake them by bringing, shipping, or discovering related resources on station. Occupational training activities were not considered in this study, because of a lack of documenting information on their nature and influence. Most individuals had learned what skills or knowledge they needed to perform their repetitive duties and required few new skills during the winter.

CREW CHARACTERISTICS AND LEARNING ACTIVITIES

While all crew members stated in their final interview that they felt the year was a positive experience to a greater or lesser degree, that they did not regret having spent the year at the South Pole, and that they accomplished, at the very least, their basic job responsibilities, it was obvious to this author and others, including the station manager, that certain individuals fared better than others in task performance and adjusting to station life. Based on this author's subjective criteria of motivational level, job performance, contributions to the quality of station life, and emotional states, four groups were formed from the interview data and personal observations. Following this, the number of winter personal projects planned and completed was compiled for

each group. The resulting descriptions for each group include behavioral and emotional characteristics and self-directed learning activities. In reporting activities, the same type mentioned by two or more persons in the same group was only listed once.

Group One consisted of six individuals who seemed to perform their daily occupational activities at a higher level of motivation, quality, and perseverance, contributed positively to station life by accomplishing additional tasks, appeared to maintain a more sanguine emotional state most of the time, and generally represented a positive influence among the crew. This group initially planned a relatively large number of self-directed learning activities and later reported that they successfully completed most. A listing of their activities is:

build and learn to play dulcimer, learn photography, build radio kit, read, do needlepoint, think about next career step, confront self for growth, develop tolerance, learn to use hand tools, practice trumpet, get ready for future, sort out differences between self and wife on personal issue, learn to play the recorder, learn Russian, practice guitar, improve chess game, study medicine, finish PhD thesis, learn French, learn to play the recorder, write novel, learn to play the tamberitza, complete correspondence course in electronics, keep journal, refinish room, write book, learn astrology, improve knowledge of meteorology, study philosophy and religion.

Additionally, this group read a combined total of over 315 books (range = 20-100, M = 53) during their year on station. All in this group were in their early to late thirties, had at least some college, most having a bachelor's degree or more, and filled scientific or professional positions on the crew.

Group Two displayed different attributes. The chief characteristic of this group of six was their reported difficulty in dealing with their work tasks or general life situation. One sub-group (A) of three completed their expected work assignments, held themselves and others to high standards, often did more than they had to, but often reported or appeared being depressed, fatigued, or frustrated by their situation. The other sub-group (B) of three also did their job, at least minimally, were not seen as always maintaining a high standard nor contributing positively to station life, and often seemed or reported being bored or frustrated by their job or general situation. The self-directed learning activities undertaken by Group Two were:

learn recorder and harmonica, read, build model, draw, write, study Arabic, history, and algebra, practice violin, improve amateur radio skills, complete electrical projects, study school subjects, embroider, do leather, work, juggle, learn

astronomy and photography.

This group generally reported that they completed few or none of their projects and read a combined total of approximately 125 books (range = 4-50, M = 21). Only one in this group had a bachelor's degree, all were below the age of 31, and all occupied technical, mechanical, or other support positions.

Group Three's characteristics were less clear than the first two groups. This group of four seemed to maintain a relatively stable, though not always positive, emotional state. This group was felt to have added little, if anything, to the quality of station life, did their jobs minimally or better, and completed some of their planned self-directed learning activities:

read, compile bibliography, build game board, grow garden, think about future, practice guitar, improve computer programming skills, write fiction journal, improve language skills, improve chess skills, learn about computers, write book.

Two of the people in this group were scientific technicians, one was a scientist, and one a mechanic. Education levels included one with some college experience, two working on Master's degrees, and one with a PhD. Ages ranged from 23 to 36.

A single individual comprised Group Four. He planned several self-directed learning activities (learn navigation, learn how to tie knots, learn musical instrument, read, study school subjects) but failed to complete any, performed his job at a reasonable standard, contributed to station life on some occasions, and had high morale throughout the year. He was 20, had one year of college, and held a technical, support position.

SELF-DIRECTED LEARNING ACTIVITIES AND NEEDS SATISFACTION

Of the four groups, Groups One and Two contrasted most readily and provided the focus for closer examination. A comparison was made between the two groups' personality and performance traits and Armstrong's (1971) research on learning-prone personalities. His theory of "high-learning" vs. "low learning" personalities suggests that in pursuing independent learning projects, those individuals who were considered to be high-learning personalities saw themselves as "reliable, tenacious, independent, with broad interests, high achievement motivation, and open to new experiences." Their learning projects were "enduring over a long period of time, motivated by high-level psychological needs, inner-directed, systematically planned, and generally closely related to the learner's self-concept." Low-learning personalities perceived themselves "as warm and friendly, masculine, conformist, and either complacently satisfied with or angrily resigned to their current life situation." Low-learner projects were "stimulated

by crisis or chance, poorly planned, designed to fulfill low-level needs, and unrelated to the learner's self-concept."

The characteristics of Group One seem to reflect many of the traits of "high-learning" personalities. A sampling of responses to interview question by individuals in this group included such comments as: "was never bored," "creative output high," "keeping busy," "less depression than expected," "not concerned with how I am getting along with others," "saw self as stable," "came here to confront self for growth," "did a better than average job," and "experience has been overwhelmingly positive." This group planned and completed the greatest number and widest diversity of self-directed learning activities, many of which spanned the entire winter. Many of the activities also seemed to be part of a plan to enhance individual skills that were tied to career or personal development.

Comments from members of Group Two tended towards the traits of low-learning personalities: "mood affected quality and quantity of work," "too tired from work to do any projects," "hard to relax here," "experience has been disappointing," "it is difficult to do well because no one really cares," and "bothered by how hard it was to be here." This group planned and completed far fewer activities than Group One, and few seemed related to furthering professional or personal development.

In this brief comparison, it appears that there is some correlation between Armstrong's learner characteristics and Groups One and Two, despite the fact that a truly empirical relationship is difficult to establish based on the available data. Another complicating factor is that the relationship between Armstrong's theory and the characteristics of Groups Three and Four is even less clear. Group Three did have two individuals who completed several projects, but the group as a whole tended to be more like Group Two B in performance, attitude, and achievement. Group Four was another exception. While completing no projects, this lone individual's emotional state was often positive, he often contributed to general station projects, and he seemed to find a great deal of satisfaction and stimulation in his work, which required a great deal of contact with the outside world, and in social interactions with others. His feelings towards learning were best expressed by his comments that he "learns more from the world than he does from school." His situation might indicate that if a person found stimulation on the job or in social interactions, there may be less of a need to engage in formal learning activities.

Aside from certain limitations, the data do suggest that learning personality characteristics and the number and nature of self-directed learning activities undertaken by individuals may say something about the level of needs being satisfied

while living in an isolated and confined environment. Borrowing from Berne, Glasser, and Maslow's needs theories, this author developed a tentative needs hierarchy for the South Pole environment. (Levesque, 1987, pp. 18-22) This hierarchy progresses from survival and safety, structure and stimulation, recognition, belonging, and esteem, power and freedom, to fun. The need for self-actualization, while important, was not considered as crucial to basic performance on station. Relating self-directed learning activities to this needs hierarchy theory, it can be seen that many of these needs can be met by engagement in learning activities. Minimally, learning activities fill time, provide structure and stimulation, balance out a boring or routine job, allow for creative self-expression, and are opportunities for personal growth.

Group One's projects seemed to fulfill many of these needs, especially at the higher level. These individuals appear to have scheduled the time and possessed the motivation and resources to actively work on self-directed learning activities that addressed not only their basic needs of structure and stimulation, but also their higher levels of needs from self-esteem to fun. Group Two, on the other hand, seemed to focus on activities that did not relate to higher needs and cited many reasons for not completing their self-directed learning activities. Mentioned were lack of motivation, inadequate resources, time conflict, fatigue, lack of space, depression, and a desire to do something else, all of which may have provided some indication of their general mental state. A potentially more important reason for their failures may have had to do with expectations. Many in Group Two expressed disappointment over their job, level of performance standards, social considerations of others, and daily life. Their failure to complete planned learning activities and other tasks may have been caused by their inability to resolve the difference between their expectations and reality, causing the subsequent loss of emotional energy from frustration, anger, or depression. While a few individuals in Group One expressed their disappointment over the same issues, they seemed to accept the situation better, resolve their conflicts, and move on to use their energy in more productive ways.

Certainly, many other factors may have also been involved in why some individuals succeeded with their self-directed learning activities while others failed, especially when the very same activities were mentioned. Level of previous educational attainment, age, job status, life experience, emotional stability, available resources, or other learning related variables might have played a part. Group One had completed more formal education, was older, held professional positions, and generally maintained more positive emotional states, while Group Two had less formal education, was younger, and held lower status positions. Subgroup B was also perceived to be low achievers.

LEARNING ACTIVITIES AND ADAPTATION

It has already been noted that all crew members reported in the final interview that their year at South Pole had been a good experience at the very least. From this baseline self-evaluation, remarks ranged up to "saw the year as a very positive experience," "learned a lot about myself," and "want to do it again." All crew members also stated that they completed their job assignments at levels ranging from "minimally" to "did a very good job." While no standard measure existed to objectively establish the level of individual adaptation, based on a review of the data and further investigation on task and activity performance and emotional health, it is the tentative conclusion of this paper that one indicator of who adapted better may well be the number and type of self-directed learning activities completed during the winter months: the greater the number completed and the higher the psychological level being addressed, the better the adaptation.

This conclusion may be supported by other findings. As mentioned in this paper, earlier research has indicated that people suffer from various symptoms when spending prolonged periods of time in isolated and confined environments. Some of these symptoms include lower achievement, negative moods, reduced motivation, intellectual inertia, impaired memory, impaired concentration, and decreased alertness, difficulty in concentration, insomnia, irritability, headache, nightmares, anxiety, mild depression, boredom, and fatigue. All of these effects can have significant impact on the ability to undertake learning, which is a highly cognitive process requiring motivation, conscious engagement, concentration, and physiological readiness. With the winter-over environment working against these learning prerequisites, it is possible that if an individual can engage in learning activities, it may indicate an ability to overcome the negative effects of isolated and confined environments.

The undertaking of learning activities may also have the potential to help counteract the symptoms on an on-going basis. Haggard (1964) has suggested that "...adaptation is facilitated if the individual can engage in activities that structure his time and thoughts and also contribute to his well-being." (p. 454) As noted above, the learning activities undertaken by Group One did provide structure, stimulation, and often assisted in promoting a positive self-image. What may be occurring with Group One is a situation where the ability to engage in learning activities indicates a better adjustment to on-site conditions, while the activities themselves provide the psychological capability for continuing adaptation.

The value of pursuing winter-over hobbies and leisure interests by winter-over crew members was explored by Gunderson (1971) who noted that, "During the winter months, when work activities are reduced for most station members, free time is

available for avocational and recreational activities. The use of this time and the satisfaction or boredom experienced by the individual may significantly affect his psychological adjustment." (p. 128) His study listed the types of activities undertaken by winter-over crews at Antarctic research stations, many of which were the same as those reported in this study. In correlating hobbies and personal history to significant predictors of winter over adjustment, he found "that biographical information (including hobby interests) contributed substantially to prediction..." of those who fare better in the winter-over situation, (p. 123) While Gunderdson drew no conclusions regarding the types and number of activities completed and the ability to adjust, he did establish winter projects as important in facilitating adaptation.

CONCLUSION

From an examination of interview data, personal observations, and related literature, it appears that engagement in self-directed learning activities by one wintering crew at a remote Antarctic research station may have signified an individual's ability to adapt to the isolated and confined conditions and may have facilitated continuing adaptation. Discovering one's history of participation in these learning activities may also provide a strong predictor of who might do well in such environments. With each wintering candidate subject to psychological screening prior to being accepted, the opportunity exists to develop a "learning-prone personality" profile along with the collection of other currently obtained psychological and personality data. By knowing a person's proclivity towards self-directed learning activities, one might ascertain how willing a potential wintering candidate might be to engage in such activities and how well he or she might fare in establishing and maintaining healthy adjustment. By adding this emphasis on "high-learning" personality traits, as well as related factors of educational attainment, experience, and work patterns, better screening parameters for those being considered for winter-over duty at Antarctic stations might be developed.

This knowledge could also be useful to the station manager in planning the organizational structure and task assignments during the winter. Those crew members with a "high-learning" profile who demonstrate sharper mental acuity might be assigned to the more critical tasks of fire fighting or search and rescue teams, where a quick reaction time may mean the saving of lives and station integrity. These crew members might also be placed high in the designated chain of command in the event of the manager's incapacitation. Other factors like maturity, judgment, and experience would also be given strong consideration as well. Facilitating self-directed learning activities on station may also provide the station manager with an additional technique for enhancing crew performance and morale during the winter months. Those crew members who were not as committed to engaging in self-directed learning activities might be encouraged to do so, possibly through work-related assignments. Learning

this particular skill would add an interesting new dimension to the manager's training prior to deployment.

Despite the evidence presented in this study, it is clearly recognized that all conclusions drawn are based on limited research data and must await verification by more reliable and valid studies. From the evidence presented here, however, it is this author's contention that a possible connection exists between self-directed learning activities and adaptation to isolated and confined environments. Beyond its application to Antarctic research stations, this knowledge has the potential to be used in other remote environments. As humankind ventures into space, conscious, active engagement in stimulating learning activities may well become one of the most important methods for maintaining productive and alert astronaut crews during extended stays on orbiting space stations and on the anticipated long duration space voyages of two to three years in the early 21st century. Self-directed learning activities might even facilitate adjustment and development in other, less extreme situations, where individuals live in confined settings or suffer from physical impairments that reduce sensory input or restrict movement, prison inmates and nursing home occupants being two such examples. Other areas of application wait to be discovered.

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APPENDIX A

Interview Questions, February, 1982

1. Age?
2. Residence?
3. Place of Birth?
4. Marital Status?
5. Education Background?
6. Family Background?
7. Previous Employment History?
8. Reasons for wanting to come to the South Pole?
9. How were you hired for your job?
10. What were your travel impressions on the way to South Pole?
11. What were your expectations about life at the South Pole?
12. What are your occupational duties?
13. How are you getting along with others?
14. Have you noticed any changes in yourself? Others?
15. What were your impressions of the summer season?
16. What are your expectations for the winter?
17. What is your perspective on South Pole Station and Antarctica?

Interview Questions, June, 1982

1. What hobbies or projects did you have planned for the winter? How are they progressing? Any new ones started?
2. What kind of daily routine do you follow?
3. Have you noticed any changes in your personal habits: eating, drinking, sleeping, dreams, reading, exercise, relaxation techniques, smoking, other?
4. How are you getting along with people?
5. What do you think of station life? If there was one thing you could change, what would it be?
6. What is your outlook on your job? Has your view on the station's function changed? How do you plan to spend your remaining time? What are your feelings about the airdrop?
7. How would you characterize your experience so far? How has the time passed?
8. Is the experience different from your expectations?
9. How would you characterize your present state of mind? Is this a change from closing?
10. Aside from professional responsibilities, would you get on board the airdrop aircraft if it could land?

APPENDIX A

Interview Questions, October, 1982

1. How did the airdrop affect your mood?
2. How did the second half of the winter go? Was it different from the first? How did the time pass?
3. Could you summarize the work you have accomplished here?
4. What are your feelings towards your work? What about the quality of the work you have done?
5. Were all your work projects accomplished?
6. How did you fare with your personal projects this year? How much reading did you do?
7. What are your current general feelings and moods?
8. How do you feel about the crew?
9. What did you think about having women on station? A Russian?
10. What personal changes occurred in your outlook, perspectives, or personal habits this year? Any changes from the first to second half? What about the station's reason for being?
11. What were your highlights this year? Low points?
12. How do you think everyone got along? Did you notice any changes in people over the year?
13. How would you sum up your year? Are you surprised with this? Did it meet or differ from you expectations? Any regrets?
14. What's next?