Becoming a Teacher: Can Fifth Year Programs Influence the Attitudes of Teacher Candidates?

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> *Often expertise is thought of as a state of being, when it is more a matter of becoming.* (Bullough & Baughman, p. 131)

This quote from Bullough and Baughman (1997) illustrates the idea that learning to teach is a developmental process. This process begins in some fashion when a person enters formal schooling and ideally continues throughout life, with good teachers always becoming better teachers. Teaching is perhaps the only career in which people have such an extended term of development. Unfortunately, nearly all of this growth in teaching is informal, haphazard and idiosyncratic. Only during a miniscule portion of this career development are individuals given formal, research-based information on the act of becoming a teacher. In California, formal university preparation is required by law to take no longer than one year, and new teachers then have induction programs of varying support for only the early years of their career.

Numerous studies have noted that this relatively brief period of formal training is inadequate to change the beliefs and attitudes of teachers. Richardson (1996) labeled pre-service teacher education as a

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weak intervention because it is sandwiched between the individual's own 17 or so years of school experience and the 30-40 years of service as a teacher. Lortie's (1975) now famous phrase of the "apprenticeship-of-observation" is very descriptive in terms of the influence early school has on beliefs about teaching. And as Loflin Smith (1993) noted, the first years of teaching are focused on practicalities so that the research-based methods learned during the pre-service program go unused long enough to atrophy. All of these concerns are enough to make us question whether a one year intervention during mid-development is adequate to produce any great change in what teachers believe about teaching.

The study reported in this article began with this question in mind, and had two purposes. First, the study was designed to look at what the beliefs about teaching really are for entering pre-service teachers. Second, the study sought to determine whether these beliefs could be changed during the coursework of a fifth-year teacher preparation program. Findings from the study will help to answer the essential question of the efficacy of fifth-year teacher preparation programs for changing teacher beliefs.

Review of Literature

Three different foci have guided this discussion of relevant literature. First, studies were reviewed that examined the characteristics and beliefs of pre-service teachers. Second, studies on the need to change these beliefs were reviewed. Finally, the question of whether these views can be changed was addressed. Throughout the paper the terms beliefs and attitudes are used roughly as synonyms and, following the lead of Pajares (1992), are distinct from knowledge. Rokeach (1968) acknowledged that beliefs have cognitive, affective and behavioral components, but for the purposes of this study beliefs and attitudes will be defined as the images individuals hold internally about various components of teaching.

Characteristics and Beliefs of Prospective Teachers

Several extensive reviews of research have confirmed that students entering teaching are mostly white females from middle-class non-urban homes (Wideen, Mayer-Smith and Moon, 1998; Brookhart & Freeman, 1992; Kagan, 1992). Green and Weaver (1992), in surveying four consecutive years of entering teacher candidates, found that these students were overwhelmingly female and Caucasian, and most were middle-class and from small or rural communities. More males are present in secondary programs than in elementary programs, and the ratio of females to males varies somewhat by institution. However, data from numerous studies

confirmed that prospective teachers form a homogeneous group of English-speaking, Caucasian females who hope to teach in schools like the ones they attended.

These national trends are echoed in California (EdSource , 2001). In California, 75% of all teachers are Caucasian, while only 35% of K-12 students are. Hispanics make up only 13% of the teaching force but are 43% of the student body. African-Americans and Asian Americans are even less well-represented in teaching, with each group constituting only about 8% of the teaching force. Novice teachers also make up a disproportionately large percentage of teachers in high poverty, minority, and second-language schools in California (Reichardt, n.d.).

Candidates enter teaching mostly for altruistic reasons (Brookhart & Freeman, 1992; Green & Weaver, 1992) in that they want to help children and serve the world. But they bring a very personal view of how teaching can best be used to do this. Hollingsworth (1989) found that prospective teachers assumed that their students would be much like themselves in terms of learning styles, interests and challenges. Further, beginning candidates were quite confident in their teaching abilities. Wideen, Mayer-Smith, and Moon (1998) found that entering candidates rated themselves as above average in nearly all teaching skills.

These studies validate the view of teaching held by many non-teachers that there is not much to learn about teaching because it is largely based upon instinct. This simplistic view of teaching has been confirmed in numerous studies. Wideen et al. (1998) noted that beginning teachers viewed teaching as the rather simple act of transferring knowledge. Sugrue (1996) found that candidates considered a "teaching personality" the most important attribute needed for success in the classroom. And Harlin (1999) noted that her preservice literacy students viewed instruction as teacher-directed and skills-based. The children were expected to be passive recipients of the teacher's knowledge.

All of this research points to a picture of the entering teacher as a confident, white female with views about both her students and her classroom that reflect her own limited personal experiences. She expects her students to learn successfully in much the same way as she did during her own schooling. Her classroom will also mirror her own experiences in that it will be teacher-controlled, textbook-oriented and follow a transmissive rather than a constructivist philosophy.

The Need to Change Beliefs of Prospective Teachers

The prior beliefs of beginning teachers have been shown to be powerful influences on their later behaviors. One way in which this

happens is by encouraging candidates to filter all new knowledge through existing beliefs. Kagan (1992), for example, found that candidates entered fieldwork experiences with images of themselves as teachers and their first concern was to validate these images. Hollingsworth (1989) found that prior beliefs of beginning teachers influenced their cognitive growth, and Holt-Reynolds (1992) noted that prior beliefs of candidates prevailed even when research evidence to the contrary was presented. Paradigms not only organize but restrict our views, and the paradigm of a prospective teacher allows her to screen out conflicting points of view.

The knowledge that prior beliefs are so powerful in the formation of a teacher would be a very positive insight if our goal was to perpetuate teaching as it has always been. However, there are serious difficulties with this as a goal. First, research on teaching has moved the field forward since entering teachers were themselves students. For example, children are now known to be active in their own learning and benefit from integrated instruction using authentic materials. A view of teaching as imparting isolated facts to a passive audience using drill activities is no longer supported by research (Harlin, 1999).

Second, the students and classrooms these new teachers will encounter do not highly resemble their own days in school. Wideen et al. (1998) cautioned of difficulties associated with a homogeneous group of individuals (white, female, middle-class, conservative) attempting to instruct an increasingly diverse group of students. This is a special concern in California, or any state with a very diverse population. As Maxson and Sindelar (1998) put it, "…unexplored entering beliefs may be responsible for the perpetuation of antiquated and ineffectual teaching practices" (p.5). This is presumably not what teacher educators have set out to do.

Changing the Beliefs of Prospective Teachers

Prior beliefs about teaching are extremely important in shaping future teaching behaviors. When prior beliefs do not accurately reflect the current knowledge base or classroom needs for teaching, changing them has turned out to be a very thorny problem. Numerous studies have shown the enduring quality of prior beliefs built up during the 20 to 30 years of life experience prospective teachers bring to a teacher education program (McDiarmid, 1990; Boger & Boger, 2000; Pajares, 1992).

Several intensive reviews of research all had remarkably consistent findings (Wideen et al., 1998; Brookhart & Freeman, 1992; Kagan, 1992; Richardson, 1996). These included the extremely limited effects of short term interventions. Richardson (1996), for example, cited numerous studies involving an intervention of only one course in a pre-service

program which showed that beliefs did not change in the desired direction. In fact, candidates' views often tended to solidify rather than change. Even longer-term interventions were largely disappointing for changing beliefs. Wideen et al. (1998) found that of the 15 studies they reviewed spanning one year or more, only four produced positive changes in beliefs of the pre-service teachers involved. Apparently, it is not a simple or rapid process to change beliefs about teaching.

Some studies, however, have provided insights into how beliefs may be changed. Linek, Nelson, and Sampson (1999) found that beliefs changed more easily if theoretical coursework was finely integrated with on-going fieldwork. Gould (2000) advised that for beliefs to be changed they must first be challenged and found unsatisfactory. New ideas must then be presented, tested through experience, and found preferable to the old beliefs. Pajares (1992) noted that changes in beliefs often followed, rather than preceded, changes in behavior in the classroom.

Clearly, if we wish to produce teachers with research-based, complex, and diversified views of the act of teaching, rather than simply perpetuate teaching as it has always been done, it will take time and a concerted effort on the part of teacher educators. The study presented here addresses two questions related to this issue. First, it considers what the beliefs really are of students who are just beginning their teacher education programs. As Pajares (1992) pointed out, much of the current research has focused on student teachers and relatively little is known about the beliefs of entering teacher candidates. Second, this study asks whether a relatively short-term teacher education program focusing on an immense number of isolated skills and knowledge can hope to produce changes in beliefs and attitudes about teaching. In other words, does the way we now do teacher education honor the growing body of research that views becoming a teacher as a long-term developmental process?

Method

The investigators sought to measure the beliefs about teaching held by preservice teachers as they entered a fifth-year teacher education program and to compare these to the beliefs the same students held at the end of the program. Specifically, the investigation focused on the beliefs held about six basic concepts: teacher, student, classroom management, lesson plans, reading, and student assessment.

Subjects

The investigators conducted their study at a mid-sized, liberal arts

university using students in a one year graduate program leading to an initial state teaching credential. This teacher education program is similar to most fifth year teacher education programs in universities throughout California. An assessment instrument was administered to a group of students as they entered the program in the fall of 2001, and again as they exited the program in the spring of 2002. Twenty-six matched pairs of students completed the assessments. These students ranged in age from 18 to 45 years. Ethnically, 16 were Caucasian, eight Hispanic and two Asian. Only three of the subjects were male. All planned to follow careers in elementary or middle schools. This population conforms to the studies reported earlier that found entering teachers to be disproportionately female, though the group was more ethnically diverse that the teaching field in general.

Instrument

The investigators chose to use the semantic differential technique to measure changes in attitudes about teaching that might occur as a result of completing a short, intensive program in teacher education. Many studies reviewed by Kerlinger (1973) have shown the validity of the semantic differential instrument for measuring attitudes. The semantic differential method was originated by Osgood, Suci, & Tannenbaum (1957), who demonstrated that the meaning of any concept can be measured along three dimensions: evaluation, potency, and activity. The technique makes use of a set of bi-polar adjectives with a scale. The scale is then given a quantitative value between one and seven relative to the concept. The semantic differential assessment developed by the investigators for use in this study included nine scales (three each measuring evaluation, potency and activity) for each of the six concepts: teacher, student, classroom management, lesson plans, teaching of reading, and student assessment. The scales were selected from a list of bi-polar terms that were validated in a classic study reported by Osgood, Suci, & Tannebaum (1957) which established a thesaurus of bi-polar terms for use with the semantic differential technique. This thesaurus has since been used to select properly validated terms for many studies using this technique. Fifty-four items in all were measured pre-test and post-test for each student. An example of the semantic differential instrument used for the concept of "teacher" is presented in Figure 1. Similar sheets were used for each of the other concepts so that each student reacted to nine pairs for each concept (see Appendix A). For each concept the bi-polar terms where randomly placed so that not all positive terms were on the left. In the example given below, the terms beneficial, successful,

Figure 1
Semantic Differential Instrument for the Concept of "Teacher"

TEACHER

Beneficial	_____:_____:_____:_____:_____:_____:_____	Harmful
Unsuccessful	_____:_____:_____:_____:_____:_____:_____	Successful
Thoughtful	_____:_____:_____:_____:_____:_____:_____	Vacuous
Tough	_____:_____:_____:_____:_____:_____:_____	Fragile
Feeble	_____:_____:_____:_____:_____:_____:_____	Vigorous
Deep	_____:_____:_____:_____:_____:_____:_____	Shallow
Energetic	_____:_____:_____:_____:_____:_____:_____	Inert
Unintentional	_____:_____:_____:_____:_____:_____:_____	Intentional
Complex	_____:_____:_____:_____:_____:_____:_____	Simple

thoughtful, tough, vigorous, deep, energetic, intentional, and complex all carried the value of 7 regardless of the order in which they appeared. This was done to reduce the chance that students would check straight down the list without thought. The first three terms on each scale measure evaluation, the next three, potency and the last three, activity.

Procedure

The investigation was conducted in two phases: the beginning of the fall semester and the end of the spring semester. Students completed the semantic differential instrument during the first two weeks of their teacher education program, and then completed the same assessment as they exited the program. At both of these times students were given written instructions on how to complete the instrument, including the instruction to make each item a separate and independent judgment and to work fairly rapidly using first impressions of each set of terms.

The pre-test and post-test results for each student were combined into matched pairs and then compared. The pre-test also allowed the investigators to determine the attitudes of entering teacher candidates and the comparison of both tests allowed the investigators to observe whether any shifts in meaning had occurred in the population during the program. The investigators performed t-tests (two tailed) on the mean values for each of the 54 items included in the instrument. Of the 54 t-tests performed, only 2 yielded differences which were statistically significant ($p<.01$). This more rigorous level of significance was chosen to offset the chance of a Type 1 error likely when so many t-tests are performed. Out of the 54 items only two showed statistically significant changes at this level of significance. These two were both in the concept of lesson plans where the movement was from a deeper more active view

of lesson planning to a view which held lesson planning to be more shallow and passive. These two changes were not in a positive direction.

The investigators concluded that the meaning given to the six concepts by the entering pre-service teachers did not change appreciably during the course of their fifth-year program. Further, the beginning meanings given to the six concepts were quite idealistic and considered all of the concepts positive, powerful and active. Since each concept had 3 items for each dimension, and each scale could be scored from 1 to 7, the range for each factor was 3 to 21. Pre-test mean scores for the three areas of each concept are reported in Table 1, and it is evident that these scores are very near the top of the range for most factors. Each factor in Table 1 represents the collapsed scores of three items for each concept.

Limitations

This study contained several limitations that should be noted. First, the number of subjects was relatively small (n=26). This relatively small sample size meant that these teacher candidates could be followed throughout their entire fifth-year program but it also may limit the reliability of the findings. Second, all of the subjects were enrolled in the teacher education program of one university. While teacher education

Table 1
Mean Scores for Pre-Test Arranged by Evaluation, Potency and Activity

Concept	Factor	Pre-test	Post-test
Teacher	Evaluation	18.54	18.31
Teacher	Potency	15.96	16.12
Teacher	Activity	17.46	17.15
Student	Evaluation	18.69	17.65
Student	Potency	17.19	16.15
Student	Activity	17.62	17.00
Class management	Evaluation	16.62	16.27
Class management	Potency	17.50	17.62
Class management	Activity	17.038	16.12
Lesson plans	Evaluation	19.46	18.42
Lesson plans	Potency	16.73	14.85
Lesson plans	Activity	17.65	16.27
Teaching Reading	Evaluation	20.00	19.80
Teaching Reading	Potency	17.32	16.92
Teaching Reading	Activity	19.28	18.60
Student Assessment	Evaluation	14.92	15.64
Student Assessment	Potency	15.16	15.36
Student Assessment	Activity	18.24	16.76

programs are aligned with state standards, and therefore quite similar to each other, slight differences in programs may produce different results. Applicability to all short term teacher education programs is considered probable for these results, but studies involving other universities would strengthen this applicability. Finally, due to the large number of t-tests needed for this study, the statistical significance level set was very rigorous to control for statistical error. Several other statistically significant changes were noted at a less rigorous level. Additional study using a larger sample size may possibly allow these additional findings to emerge as significant.

Discussion

The results of the study are interesting from several perspectives. First, the results of the pre-test show an idealistic and fairly homogeneous group in terms of attitudes toward the six concepts. Entering students saw the value of lesson plans and reading instruction and they viewed the concepts of both teacher and student as good. The only area in which these entering candidates were even slightly unsure was in the area of student assessment. They were unsure of the value or power of assessment, though at the beginning they were convinced it was an active process.

These results conform to several previous studies of preservice teachers. As noted earlier, Kagan (1992) found preservice teachers to be a homogeneous group. They were over-confident in their own abilities (Wideen, et al., 1998), and viewed teaching as a simplistic and instinctive act (Sugrue, 1996). The preservice teachers in this study were also homogeneous, confident and simplistic in their beliefs about the six concepts examined.

From another perspective, the absence of positive changes in beliefs of these preservice teachers should also not be terribly surprising. As noted in the literature review, numerous studies have failed to show positive changes for short-term interventions (Richardson, 1996), and even longer term interventions of a year or more only occasionally produced positive changes in attitudes (Wideen, et al., 1998). The program length in the current study falls between these two designations. The time studied was the entire length of a fifth-year teacher education program, but by California law this may be no longer than two semesters. Thus, this study lasted longer than the one-course interventions studied in Richardson, but was of shorter duration than most of the programs reported by Wideen et al. It is not surprising, then, that positive changes in attitudes were not accomplished. The fact that so few attitudes exhibited any statistically significant change at all conforms to Richardson's

(1996) additional finding that views of preservice teachers tended to solidify rather than change during their programs.

Though no positive changes were found, two areas on the semantic differential instrument showed negative changes in attitudes. These regressed to the mean from a relatively positive and idealistic viewpoint. This loss of naiveté in their views may partially be due to the fact that these preservice teachers were heavily involved in concurrent fieldwork assignments and had begun to view the job of teaching more realistically.

However, the statistically significant negative changes that occurred in the concept of lesson planning could also be seen as quite disturbing. For this concept, beginning students saw planning as complex, active and motivated. At the end, the students saw planning as more shallow, more passive and more aimless. While this may represent a move toward a more realistic view of teaching, seeing lesson plans in this way is certainly not the intended outcome of teacher education.

Conclusion

No matter how predictable the findings of this study may have been, the results are still ultimately disappointing. Students in fifth-year teacher education programs are presumably improving in knowledge as evidenced by successful completion of the program and consistently high pass rates on state teachers' examinations, such as the Reading Instruction Competence Assessment (RICA). However, the knowledge base needed by a beginning teacher is apparently more quickly transferred than the attitudes and beliefs needed to be a strong educator. Numerous studies, including this one, have failed to note positive attitudinal changes occurring in relatively short programs. Such a convergence of research findings is rare and deserves serious consideration when teacher education programs are controlled by state laws. Purposefully truncating teacher education will almost surely result in teachers much like the ones in schools for decades.

Some may feel this is not such a negative result, however, and that change is not needed in this area. There are at least two difficulties with this view, however. First, the attitudes of the homogeneous group of people training to be teachers will almost certainly not be congruent with the attitudes of the heterogeneous group of students these candidates will encounter in the classroom. As teaching continues to be populated by individuals with a largely white, middle-class and female worldview, we can expect increasing disconnections with our often poor, ethnically diverse and male students.

Second, the strength of paradigm cannot be minimized in this area. As Holt-Reynolds (1992) recognized, our own attitudes act as a filter in everything we do. Not only does our paradigm convince us of the correctness of our own views, but it actually blinds us to other views. In other words, teachers who carry traditional and unexamined beliefs into the classroom will not only consider their view the right view, but also the only view. That the teacher candidates in this study persisted so strongly in their prior beliefs about education, as evidenced by the high pre and post mean scores on most scales, leads us to worry that incoming beliefs will be even harder to change in prospective teachers.

Recommendations

The results of this investigation and others lead us to make the following recommendations:

1. Teacher education programs should be lengthened, and the excessive emphasis on isolated skills and knowledge should be re-examined with content knowledge, pedagogy and supervised fieldwork being more finely integrated throughout the length-ened program.

2. Teacher education programs should intentionally include opportunities in every course to identify and examine persistent beliefs held by candidates about teaching. Most of these attitudes now appear to be not only unchallenged, but even unrecognized by beginners in the field.

3. Research into changing attitudes in teacher education should continue to be conducted. More information is needed like that provided by Gould (2000) on methods and conditions useful for changing beliefs. Also, even in this current study when group means did not show significant change, some individual students actually changed a great deal. Study into what helped these students toward growth could be applied to teacher education program design.

Changing beliefs and attitudes about teaching is like trying to turn a very large ship. It can be done, but it will take considerable time and a cooperative effort between state legislators, teacher educators, and school district personnel. Changing something so large and deeply ingrained will not be an easy or quick task. It needs to be done, however, because right now the ship is going in the wrong direction.

References

Boger, C.C. & Boger, D. (2000). Preservice teachers' explanation of their teaching behavior. *Journal of Instructional Psychology, 27*(4), 217-223.

Brookhart, S.M.& Freeman, D.J. (1992). Characteristics of entering teacher candidates. *Review of Educational Research, 62*(1), 37-60.

Bullough, R. V., Jr. & Baughman, K. (1997). *"First year teacher" Eight years later: An inquiry into teacher development*. Columbia, New York: Teachers College Press.

EdSource (2001). *Profile of California's Teachers, 1999-2000*. Retrieved September 15, 2003, from gttp://www.edsource.org/sch_gra_teach.cfm.

Gould, L. (2000). Changes in pre-service teachers' schema for understanding teaching. *Action in Teacher Education, 21*(4), 90-100.

Green, J.E. & Weaver, R. (1992). Who aspires to teach? A descriptive study of Preservice teachers. *Contemporary Education, 62*(3), 234-239.

Harlin, R.P. (1999) Developing future professionals: Influences of literacy coursework and field experiences. *Reading Research and Instruction, 38*(4), 351-70.

Hollingsworth, S. (1989). Prior beliefs and cognitive change in learning to teach. *American Educational Research Journal, 26*, 160-189.

Holt-Reynolds, D. (1992). Personal history-based beliefs as relevant prior knowledge in coursework: Can we practice what we teach? *American Educational Research Journal, 29*, 325-349.

Kagan, D.M. (1992). Professional growth among pre-service and beginning teachers. *Review of Educational Research, 62*(2), 129-169.

Kerlinger, F.M. (1973). *Foundations of behavioral research* (2nd ed.). New York: Holt.

Linek, W.M., Nelson, O.C., & Sampson, M.B. (1999). Developing beliefs about literacy instruction: A cross-case analysis of pre-service teachers in traditional and field-based settings. *Reading Research and Instruction, 38*(4), 371-86.

Loflin Smith, R. (1993). The evolution of preservice teachers' orientations during early field experiences and initial teacher education coursework. Paper presented at the Annual Meeting of the American Educational Research Association, Atlanta, GA.

Lortie, D.C. (1975). *Schoolteacher*. Chicago: University of Chicago Press.

Maxson, M.M.& Sindelar, R. (1998). Images revisited: examining pre-service teachers' ideas about teaching. *Teacher Education Quarterly, 25*(2), 5-26.

McDiarmid, G.W. (1990). Challenging prospective teachers' beliefs during early field experiences: A quixotic undertaking? *Journal of Teacher Education, 41*(3), 12-20.

Osgood, C.E., Suci, G.J., & Tannenbaum, P.H. (1957). *The measurement of meaning*. Urbana, IL: University of Illinois Press.

Pajares, M.F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*(3), 307-332.

Reichardt, R.(n.d.).Appendix 9: Descriptors of California teachers between 1995-96 and 1998-99. In *The cost of class size reduction: Advice for policy makers*. Retrieved September 15, 2003, from http://www.rand.org/publications/RGSD/RGSD156/

Richardson, V. (1996). The role of attitudes and beliefs in learning to teach. In J.

Sikula, T. Buttery, & E. Guyton (Eds.). *Handbook of research on teacher education, 2nd Ed.* (pp. 102-119). New York: Macmillan.

Rokeach, M. (1968). *The open and closed mind: Investigations into the nature of belief systems and personality systems.* New York: Basic Books.

Sugrue, C. (1996). Student teachers' lay theories: Implications for professional development. In I.F. Goodson & A. Hargreaves (Eds.), *Teachers' professional lives* (pp. 154-177). Washington, DC: Falmer Press.

Wideen, M., Mayer-Smith, J. & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research, 68*(2), 130-178.

Appendix A

Bi-Polar Terms Used for Each Concept

STUDENT	LESSON PLANS
Intelligent/unintelligent	Beneficial/harmful
Good/bad	Important/unimportant
Successful/unsuccessful	Thoughtful/vacuous
Strong/weak	Vigorous/feeble
Brave/cowardly	Thick/thin
Wide/narrow	Deep/shallow
Moving/still	Energetic/inert
Complex/simple	Laborious/effortless
Motivated/aimless	Motivated/aimless
CLASSROOM MANAGEMENT	TEACHING OF READING
Merciful/merciless	Important/unimportant
Approving/disapproving	Thoughtful/vacuous
Useful/useless	Successful/unsuccessful
Tough/fragile	Hard/soft
Strong/weak	Vigorous/feeble
Vigorous/feeble	Deep/shallow
Active/passive	Active/passive
Intentional/unintentional	Intentional/unintentional
Complex/simple	Multiple/single
TEACHER	STUDENT ASSESSMENT
Beneficial/harmful	Voluntary/compulsory
Successful/unsuccessful	Beneficial/harmful
Thoughtful/vacuous	Wise/foolish
Tough/fragile	Hard/soft
Vigorous/feeble	Strong/weak
Deep/shallow	Deep/shallow
Energetic/inert	Active/passive
Intentional/unintentional	Motivated/aimless
Complex/simple	Multiple/single